

**C-108 Application for Authority to Inject
Linam Plant Area
Lea County, NM**

September 12, 2005



Prepared for:
Duke Energy Field Services
370 17th Street, Suite 2500
Denver, CO 80202

Submitted to:
NM Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Prepared by:
Geolex, Inc.
500 Marquette Ave. NW, Suite 1350
Albuquerque, NM 87104

BEFORE THE OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Case No. 13589 Exhibit No. 1
Submitted by:
DUKE ENERGY FIELD SERVICES, LP
Hearing Date: February 9, 2006

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: Disposal

Application qualifies for administrative approval:

II. OPERATOR: Duke Energy Field Services, LP

ADDRESS: 370 17th Street, #2500, Denver CO 80202

CONTACT PARTY: Joshua Epel, Esq PHONE: 303-605-2160

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? No
If yes, give the Division order number authorizing the project: NA

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

The locations of all wells within the 2-mile and ½-mile radii of the proposed infection well are provided in the attached *Supplement Map 1 for C-108 Section V*. Locations of adjacent leases are provided in the attached supplement *Map 2 for C-108 Section V*.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

The tabulation of the available public data on wells within the 2-mile and ½ mile radii are presented in the attached *Supplemental Tabular Information for Section VI*. This tabulation includes the description of all wells within the 2-mile radius and the requested data on the wells within the ½-mile radius (highlighted in yellow). The requested plugging records for the wells in the ½-mile radius are included as Attachments A through K.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
-
1. The proposed average of injection will be 2200 barrels per day, with a maximum rate of 2500 barrels per day.
 2. At the Lower Bone Springs Formation (primary horizon) and the Brushy Canyon Formation (secondary horizon) the systems are closed. Faults and/or up dip stratigraphical changes (limiting porosity and permeability) effectively confine the injection zones. Additional geological data for the area of the proposed injection well is included as the attached *Supplemental Information for Section VII - Geology*.
 3. The proposed average injection pressure is 2700 psi, and the maximum is 2800 psi. The acid gas will have a specific gravity of 0.78 or less. At a depth of 9000 feet, this will reduce the hydraulic head by 1000 psi relative to the 1.04 specific gravity of water. Thus, the differential fracture gradient of 0.2 psi will result in a maximum injection pressure of 2700 psi at 8700 feet, and 2800 psi at 9000 feet.
 4. The injection fluid (acid gases) differ slightly in the dry, wet, and discharge streams. These design compositions range from Carbon Dioxide levels of 65.5% (wet) to 74.6% (dry), and Hydrogen Sulfide levels of 21.9.0% (wet) to 25.0% (dry). Water ranges from 12.2% (wet) to 0% (dry), and there are traces of hydrocarbons with an average of less than 1%. Detailed analyses are included as *Supplemental Information for Section VII - Injection Fluid Analyses*.
 5. Formation water in the proposed zone (Lower Bone Springs/Wolfcamp) was researched from available data on wells in the adjacent Texas counties of Gaines and Yoakum. These analyses show that the formation waters have Total Dissolved Solids ranging from 69,000 to 200,000 parts per million (ppm), and Chloride levels from 40,000 to 114,000 ppm. The data are included as *Supplemental Information for Section VII - Formation Fluid Analyses*.

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

Geological Names:	Lower Bone Springs	Brushy Canyon
Lithologies:	Limestone	Sandstone
Thicknesses:	100' to 150'	100' to 120'
Depths:	8700' to 9000'	5000' to 5300'

The only significant drinking water aquifer is in the surficial, alluvial deposits of the Ogallala Formation. This unit is locally 100 to 200 feet thick, and the unconfined aquifer in this formation is encountered at 40 to 60 feet below the surface. The groundwater has an average Total Dissolved Solids of 250 to 500 ppm.

IX. Describe the proposed stimulation program, if any.

Stimulation programs, if necessary, will be evaluated following drilling, logging and testing.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

The well has not been drilled at this time.

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

According to the data received from the State Engineer, there are 4 active water wells in Section 30, 18S, 37E. Three wells are permitted under L 06854 (Section 30, Quarter 1,1,1) L 06854S (Section 30, Quarter 1,3,3), and L 06854S2 (Section 30, Quarter 2), and are listed as irrigation wells; depths are not included but depth to water is 42 feet. The other well is listed under permit L 09046 (Section 30, Quarter 4). This well is identified as a stock well, and has a reported depth of 122 feet and a depth to water of 42 feet. The location information is not adequate to accurately show the wells on a topographic map.

We have not been able to obtain analyses from any drinking water wells within 2 miles of the proposed injection well. However, we have obtained analyses for 4 wells located in Section 21, 19S, 37E, approximately 5 miles south-southeast from the proposed injection well. The data is provided in the attached *Supplemental Data for Section XI*, and locations are to be founded in the *Supplemental Map for Section XI*.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

We have analyzed the available geological and engineering data and affirm that there are no open faults or other hydrogeological connections between the proposed injection zone(s) and the known sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

Notices are being prepared for adjacent operators, and a public notice for interested parties will be published in Lea County, New Mexico. Copies of all certified notices and affidavits of publication will be provided.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Alberto A. Gutierrez, CPG TITLE: President, Geolex, Inc.

SIGNATURE:  DATE: September 12, 2005

E-MAIL ADDRESS: aaq@geolex.com

If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET

OPERATOR: Duke Energy Field Services, LP

WELL NAME & NUMBER: Linam AGI #1 (Proposed)

WELL LOCATION: 1980 FSL 1980 FWL; Section 30, Township 18S Range 37E

WELLBORE SCHEMATICWELL CONSTRUCTION DATA
Surface Casing

Hole Size: 17 1/2" Casing Size: 13 3/8" _____ ft³
 Cemented with: 675 sx. or _____

Top of Cement: Surface Method Determined: Visual

Intermediate Casing

Hole Size: 12 1/4" Casing Size: 9 5/8" _____ ft³
 Cemented with: 1000 sx. or _____

Top of Cement: Surface Method Determined: Visual

Production Casing

Hole Size: 8 1/2" Casing Size: 7" _____ ft³
 Cemented with: 1000 sx. or _____

Top of Cement: Surface Method Determined: Visual

Total Depth: 8900

Injection Interval: Perforated

8700 feet To 8900 Feet

CASING	HOLE	TVD	MD	TOC	Logs
20"	24"	45'	45'	Surf	NA
13 3/8"	17 1/2"	530'	530'	Surf	NA
9 5/8"	12 1/2"	4200'	4200'	Surf	NA
7"	8 1/2"	8900'	8900'	Surf	AIT, LDT, CNL, ML

INJECTION WELL DATA SHEET

Tubing Size: 3 1/2" 9.3 ppf, L-80, EUE Lining Material: Plastic Coated

Type of Packer: Retrievable Production Packer (Schlumberger QL, Baker DB or Similar

Packer Setting Depth: 8500' – 8600'

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

1. Is this a new well drilled for injection? Yes. Note: Well has not yet been drilled.

If no, for what purpose was the well originally drilled? NA

2. Name of the Injection Formation: Lower Bone Springs/ (Wolfcamp)

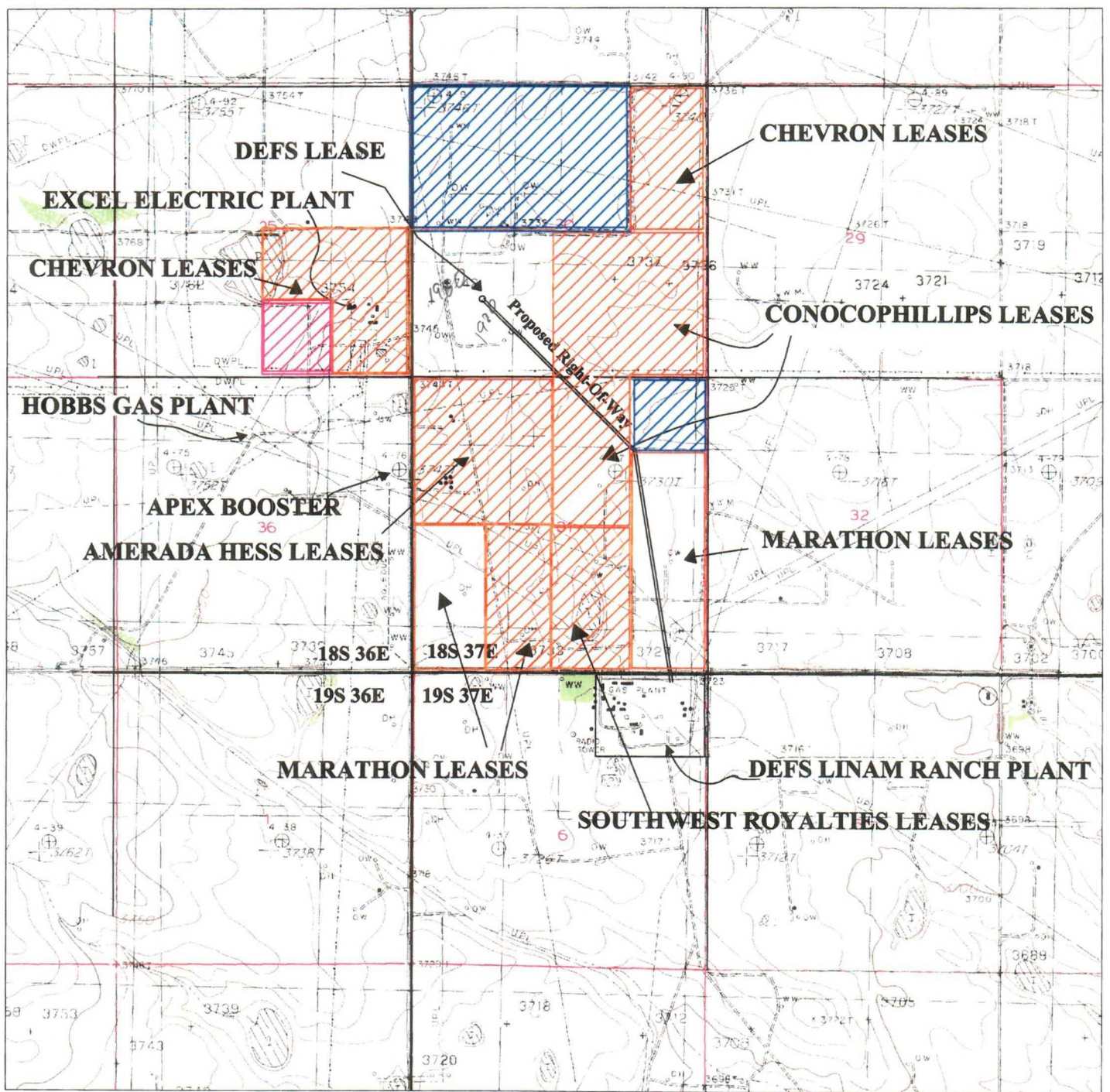
3. Name of Field or Pool (if applicable): NA

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. NA

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

Ellenburger (9000), Upper Bone Springs - Abo (6200),
Yeso (4200), San Andres-Glorieta (2230), Grayburg-Queen (1450)

Supplemental Maps for Section V



Supplemental Map 2 for C-108 Section V
Showing Approximate Land Status in Sections 30 and 31, 18S 37E
and Part of Section 25, 18S 36E, New Mexico



Supplemental Tabular Information for Section VI

C108 Part VI Summary of Wells of Public Record Penetrating Injection Zone(s) in Area of Review

WELLS WITHIN THE 1/2 MILE RADIUS:

Well Name	Operator	Location T, R, Sec.	Specific Location (ie. FNL, FWL)	Unit #	Well Type	Date Drilled	Total Depth	Completion Depth(s)	Formation(s)	Status	Plugging Date	Plugging Records
Goodwin State "30" #1	Continental Oil	18S; 37E; 30	1980 FNL & 660 FWL	E	Oil	02/05/62	8200	7358-7423	Abn, Reef Detritus	P&A	07/01/88	Attachment A
State GG-30 #1	Continental Oil	18S; 37E; 30	2310 FSL & 1650 FWL	K	Oil	08/03/62	7732	7460-7490	Abn	P&A	09/10/87	Attachment B
Beary-State #1-A	Gordon M. Cone	18S; 37E; 30	1980 FSL & 2080 FWL	K	Dry hole	12/28/43	4600	None	None	Unknown; notice of intent to plug 2/8/44	Unknown	Attachment C
Superior-State #1	Gordon M. Cone	18S; 37E; 30	1980 FSL & 1980 FWL	K	Dry hole	07/06/42	709	None	None	P&A	07/06/42	Attachment D
State GG-30 #2	Continental Oil	18S; 37E; 30	660 FSL & 660 FWL	M	Oil	04/09/63	7562	7274-7436	Abn, Reef Detritus, Clear Fork	P&A	01/02/96	Attachment E
Goodwin State "30" #2	Continental Oil	18S; 37E; 30	1980 FNL & 1980 FWL	F	Oil	08/13/64	7600	7523-7543; 7022-7112; 6751-6794; 6026-6120	Abn, Drinkard; Bone Spring	P&A	06/16/87	Attachment F
State GG-30 #3	Continental Oil	18S; 37E; 30	660 FSL & 1650 FWL	N	Oil	12/24/64	7600	6982-7184	Drinkard	P&A	12/30/96	Attachment G
State 30 #1	J.S. Abercrombie	18S; 37E; 30	1980 FSL & 1980 FEL	J	Oil	02/12/79	7550	7255-7372; 7020-7131; 6727-6895; 5871-5924; 5657-5667	Drinkard, Clear Fork Bone Springs	P&A	04/18/79	Attachment H
Goodwin "30" #1	EnerQuest Resources	18S; 37E; 30	1650 FSL & 1650 FWL	K	Dry hole	01/22/00	7700	7462-7476; 7018-7044	Abn, Drinkard	P&A	05/03/00	Attachment I
Graham-State #1	Steve Gose	18S; 36E; 25	660 FSL & 330 FEL	P	Dry hole	12/29/64	7490	7478-7488; 7417-7436; 7444-7450; 7460-7474; 5834-5852; 5858-5870; 5914-5932; 6032-6040	Abn, Bone Spring (? = not given on formation record; but same depth as Bone Spring in nearby well)	P&A	02/22/65	Attachment J
State WNE #2	Amerada Petroleum/Unichem	18S; 37E; 31	660 FNL & 660 FWL	D	Oil/ SWD	08/01/63	7460	7354-7449 & 5010-6588	Abn, Delaware Sand & Bone Springs	P&A	02/26/91	Attachment K

WELLS WITHIN THE 2-MILE RADIUS BUT OUTSIDE THE 1/2 MILE RADIUS:

Well Name	Operator	Location T, R, Sec.	Specific Location (ie. FNL, FWL)	Unit #	Well Type	Date Drilled	Total Depth	Completion Depth(s)	Formation(s)	Status	Plugging Date	Plugging Records
State "B" #1	Pan American Petroleum	19S; 36E; 1	1980 FNL & 330 FEL	H								
State "B" #2	Pan American Petroleum	19S; 36E; 1	990 FNL & 330 FEL	A								
State "B" #3	Amoco Production Co.	19S; 36E; 1	1650 FNL & 1980 FEL	G								
Indiana "1" #1	Sahara Operating Co.	19S; 36E; 1	1682 FNL & 1975 FEL	G								
Indiana "1" #2	Sahara Operating Co.	19S; 36E; 1	744 FNL & 1653 FEL	B								
Carper-Stanolind State #1-B	Carper Drilling	19S; 36E; 2	660 FSL & 1980 FEL	O								
Humble State #1	Abbott Brothers	19S; 36E; 2	660 FSL & 660 FEL	P								
Linam G #1	Schermerhorn Oil	19S; 37E; 5	1025 FNL & 1953 FEL	B								
State "AC" #1	Tidewater Oil	19S; 37E; 5	2079 FNL & 1974 FWL	F								
State "AC" #2	Getty Oil	19S; 37E; 5	1980 FNL & 660 FWL	E								
Shell State #1	Bill A. Shelton	19S; 37E; 6	995 FNL & 2293 FWL	C								
Shell State #2	Bill A. Shelton	19S; 37E; 6	994 FNL & 975 FWL	D								
NM CE State #1	The Texas Company	19S; 37E; 6	1655 FNL & 330 FWL	E								
NM "C" State NCT-6 #1	The Texas Company	19S; 37E; 6	1980 FSL & 1980 FEL	J								
NM CE State #2	The Texas Company	19S; 37E; 6	1685 FNL & 1652 FWL	F								
Shell State #1	Carbon Energy	19S; 37E; 6	990 FNL & 1650 FWL	C								
Goodwin State #1	Xeric	19S; 37E; 6	330 FNL & 330 FWL	D								
State B-19 #1	Conoco	18S; 37E; 19	660 FSL & 1980 FEL	O								
State B-19 #3	Conoco	18S; 37E; 19	2300 FSL & 1660 FEL	J								
State B-19 #4	Conoco	18S; 37E; 19	985 FNL & 660 FEL	A								
State B-19 #2	Conoco	18S; 37E; 19	2275 FNL & 1215 FEL	H								
Shipp #1	Phillips Petroleum	18S; 37E; 20	660 FNL & 1980 FEL	B								
ACR #1	Joe Melton Drfg Co.	18S; 37E; 20	660 FSL & 660 FWL	M								

Well Name	Operator	Location T, R, Sec.	Specific Location (ie. FNL, FWL)	Unit #	Well Type	Date Drilled	Total Depth	Completion Depth(s)	Formation(s)	Status	Plugging Date	Plugging Records
State 23 Com #1	W.K. Byrom	18S; 36E; 23	660 FNL & 660 FEL	A								
State 24 #2	W.K. Byrom	18S; 36E; 24	660 FNL & 660 FWL	D								
State NG #1	Aztec Oil & Gas Co.	18S; 36E; 24	1980 FNL & 1980 FEL	G								
Goodwin #3 (formerly Goodwin 25 #1)	Continental Oil	18S; 36E; 25	1980 FNL & 1980 FEL	G								
Maralo State #1	Southwest Royalties	18S; 37E; 28	330 FSL & 660 FWL	M								
Maralo State #2	Hal Rasmussen	18S; 37E; 28	330 FSL & 1650 FWL	N								
McMillan #1	Makin Oil Co.	18S; 37E; 29	660 FSL & 1980 FWL	N								
McMillan #2	Southwest Royalties	18S; 37E; 29	1980 FSL & 1980 FWL	K								
Conoco "29" State #1	Southwest Royalties	18S; 37E; 29	1980 FSL & 1980 FEL	J								
Conoco "29" State #2	Southwest Royalties	18S; 37E; 29	660 FSL & 1980 FEL	O								
Conoco "29" State #3	Southwest Royalties	18S; 37E; 29	330 FSL & 660 FEL	P								
State WM "E" #1	Amerada Petroleum	18S; 37E; 31	1980 FNL & 1980 FWL	F								
State "O" #1	Morris R. Antweil	18S; 37E; 31	660 FSL & 1980 FWL	N								
State "O" #2	Morris R. Antweil	18S; 37E; 31	1650 FSL & 2290 FWL	K								
Lea State "CM" #1	Gulf Oil	18S; 37E; 31	660 FSL & 660 FWL	M								
Cheryl A #1	Phillips Petroleum	18S; 37E; 31	1980 FSL & 1983 FEL	J								
Gulf State #1	Scheuermoth	18S; 37E; 31	589 FSL & 589 FEL	P								
Goodwin SWD #31 (formerly State WME #3)	Amerada Petroleum	18S; 37E; 31	1980 FNL & 660 FWL	E								
State B-31 #1 (formerly Conoco State #1)	Pennzoil	18S; 37E; 31	1980 FNL & 1980 FEL	G								
Yates State #1	Kennedy Oil	18S; 37E; 31	1980 FSL & 660 FEL	I								
Cheryl A #2	Phillips Petroleum	18S; 37E; 31	560 FSL & 1839 FEL	O								
Goodwin State #1	Marathon Oil	18S; 37E; 31	2160 FSL & 330 FWL	L								

Well Name	Operator	Location T, R, Sec.	Specific Location (ie. FNL, FWL)	Unit #	Well Type	Date Drilled	Total Depth	Completion Depth(s)	Formation(s)	Status	Plugging Date	Plugging Records
New Mexico "AK" State #1	Humble Oil & Refining	18S; 37E; 32	1880 FSL & 1980 FWL	K								
Mike #2 (formerly Linam "A" #1)	Schermerhorn	18S; 37E; 32	1980 FSL & 1980 FEL	J								
New Mexico "AK" State #2	Kennedy Oil Co.	18S; 37E; 32	330 FSL & 2310 FWL	N								
Mike #1	Alpha 21 Production	18S; 37E; 32	660 FSL & 660 FEL	P								
Mike #3	Alpha 21 Production	18S; 37E; 32	1650 FSL & 990 FEL	I								
Mike #4	Alpha 21 Production	18S; 37E; 32	2530 FNL & 1380 FEL	G								
Howard 32 State #1	Southwest Royalties	18S; 37E; 32	990 FNL & 330 FEL	A								
Lowe State #1	Morris Antweil	18S; 37E; 33	660 FNL & 660 FWL	D								
Ohio State #1	Gordon M. Cone	18S; 37E; 33	2310 FSL & 330 FWL	L								
East Eumont Unit #7	Schermerhorn Oil	18S; 37E; 33	880 FSL & 660 FWL	M								
Lea ACF State #1	Gulf Oil	18S; 36E; 35	660 FNL & 660 FEL	A								
State A-36 "A" #1	Continental Oil	18S; 36E; 36	1980 FSL & 1980 FEL	J								
State A #2	Gil McOil Corp.	18S; 36E; 36	660 FNL & 660 FEL	A								
Monument 36 State #3	Chevron	18S; 36E; 36	2178 FNL & 620 FEL	H								
Monument 36 State #1	Chevron	18S; 36E; 36	384 FSL & 1216 FEL	P								
Monument 36 State #2	Chevron	18S; 36E; 36	1632 FSL & 1298 FEL	I								

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-103
Revised 10-1-

3a. Indicate Type of Lease
State ☐ File ☒
3. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO STOP OR PLUG BACK TO A DIFFERENT RESERVOIR.
USE APPLICATION FOR PERMIT TO DRILL (FD-101) FOR SUCH PROPOSALS.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>	7. Unit Agreement Name
2. Name of Operator M. BRAD BENNETT, INC.	8. Farm or Lease Name Goodwin "30"
3. Address of Operator P.O. Box 2062 Midland, Texas 79702	9. Well No. 1
4. Location of well: UNIT LETTER E 660 FEET FROM THE West LINE AND 1930 FEET FROM THE North LINE, SECTION 30 TOWNSHIP 18-S RANGE 37-E N.M.P.M.	10. Field and Pool, or Whichever Goodwin (Drinkard)
15. Elevation (Show whether DP, RT, GR, etc.)	12. County Lea

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPER. <input type="checkbox"/>	PLUG AND ABANDONMENT <input checked="" type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOBS <input type="checkbox"/>	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

- 6/24/88 1. Spot 35 sx cement @ 7000' - tag @ 6835'
- 6/28/88 2. Spot 20 sx @ 6500' - 6500' across casing cut
- 6/28/88 3. Spot 20 sx @ 5400' - 5300' across casing cut
- 6/28/88 4. Spot 35 sx @ 5050' - tag @ 4938' - pulled 5000' of 5-1/2 casing
- 6/29/88 5. Spot 80 sx @ 4718' to 4518'
- 6/29/88 6. Spot 35 sx @ 3346' - 3246'
- 6/30/88 7. Spot 35 sx @ 2050' - 1950' across casing cut
- 6/30/88 8. Spot 35 sx @ 1050' - 950' across casing cut
- 6/30/88 9. Spot 55 sx @ 837' - tag @ 732' - pulled 787' of 8-5/8 casing
- 6/30/88 10. Spot 70 sx @ 406' - 306'
- 7/01/88 11. Spot 10 sx @ surface, install dry hole marker

Hole was circulated with 10# mud. All plugs spotted through tubing.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED Red Smith TITLE OIL & GAS INSPECTOR DATE July 11, 1988
APPROVED BY R. A. Kachler TITLE OIL & GAS INSPECTOR DATE July 12, 1988
CONDITIONS OF APPROVAL, IF ANY:

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LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease State <input type="checkbox"/> Fee <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.
7. Unit Agreement Name
8. Farm or Lease Name Goodwin "30"
9. Well No. 7
10. Field and Pool, or Wildcat Goodwin (Drinkard)
12. County Lea

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER-
2. Name of Operator M. Brad Bennett, Inc.
3. Address of Operator P.O. Box 2062 Midland, Texas 79702
4. Location of Well UNIT LETTER <u>E</u> , <u>660</u> FEET FROM THE <u>West</u> LINE AND <u>1980</u> FEET FROM THE <u>North</u> LINE, SECTION <u>30</u> TOWNSHIP <u>18-S</u> RANGE <u>37-E</u> NMPM.
15. Elevation (Show whether DF, RT, GR, etc.)

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input checked="" type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	OTHER <input type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

- Plan to MIRU 6/1/88 POOH w/ tubing and rods.
- Cut and pull 5 1/2" @ approx. 6500', spot 15 sx. inside 5 1/2" stub and 20 sx. outside stub in open hole. Estimate plug 6450-6550'. W.O.C. and tag plug.
- Spot 80 sx. from 4518-4718'.
- Spot 35 sx. from 3346-3246' to isolate 8 5/8" shoe @ 3296'.
- Cut and pull 9 5/8" casing at approx. 2600'. Spot 20 sx. inside 9 5/8" stub and 35 sx. outside stub in open hole. Estimate plug 2650-2550'. W.O.C. and tag plug.
- Spot 70 sx. plug from 406-306' to isolate 13 3/8" shoe at 356'.
- Spot 10 sx. plug at surface, cut off wellhead and install P&A marker.
- Sketch attached.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Signed M. Brad Bennett TITLE President-M. Brad Bennett, Inc. DATE May 18, 1988

ORIGINAL SIGNED BY JERRY SEXTON SUPERVISOR

APPROVED BY _____ DATE MAY 20 1988

CONDITIONS OF APPROVAL, IF ANY:

17 1/2" hole
12 1/4" hole

Red Bed 0-1580'
Hardy shale 1550-1700'
Silt 1700-2730'
Hard, sh. sl. 2750-3200'

T. Yates 2875'
San Andres 4568'
Clearback 6871'

(13 3/8")
13 3/8", 48 #, H-40 @ 356'
Cem w/375 SX. Circ.

Cem @ 2800' Temp Surv.
(107 1/2")
9 5/8", 36 # H-40 & J-55
@ 3296'
Cem w/175 SX.
Cem top 2800' temp surv.

8 3/4" hole

Perf. 7000-7099
Perf 7296-7340
Perf 7347-7353
Perf 7377-7392
Perf 7416-7432
Perf 7446-7462
CIBP @ 7500

Cem 6800' Temp survey
CIBP @ 7225' C.I.C 4 SX.
PBTD 7428'
Cement Retainer
5Q 75 SX.

(175 1/2") 14 #, J-55
5 1/2", (96 1/2") 17 #, N-80 @ 7554'
Cem w/150 SX.
Cem top 6800' Temp Surv.
Set w/110,000 # tension on slips

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OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease	State <input checked="" type="checkbox"/> Fee <input type="checkbox"/>
5. State Oil & Gas Lease No.	A-3071

SUNDRY NOTICES AND REPORTS ON WELLS
DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR.
USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>	7. Unit Agreement Name
2. Name of Operator Conoco Inc.	8. Farm or Lease Name State GG-30
3. Address of Operator P.O. Box 460 - Hobbs, New Mexico 88240	9. Well No. No 1
4. Location of Well UNIT LETTER <u>K</u> <u>2310</u> FEET FROM THE <u>South</u> LINE AND <u>1650</u> FEET FROM THE <u>West</u> LINE, SECTION <u>30</u> TOWNSHIP <u>18S</u> RANGE <u>37E</u> NMPM.	10. Field and Pool, or Wildcat Goodwin/Drinkard
11. Elevation (Show whether DF, RT, GR, etc.)	12. County Lea

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data
NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPERATIONS <input type="checkbox"/>	PLUG AND ABANDONMENT <input checked="" type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1703.

MIRU. Go in hole w/ gauge ring & junk basket to 7100'. POOH. Go in hole w/ 5 1/2" CIBP and set at 7050' (isolate Drinkard perfor). Go in hole w/ dump bailer & spot 35' of cement on top of CIBP. Go in hole w/ 5 1/2" CIBP & set at 6580 (isolate top of Drinkard) Go in hole w/ dump bailer & spot 35' of cement on CIBP. POOH. Go in hole w/ 2 1/2" TBG to 6520'. Circ w/ 151 lbs 9.5 ppg mud (25 sxs salt gel 100 lb 9 ppg brine) POOH w/ TBG. Spot 2 lb 10% Acetic acid from 3150'-3066'. Perf w/ 4 spf at 3150'. Pump 9.5 ppg mud down 5 1/2" CSG & establish circulation. Pump 500 sxs class "C" neat cement mixed at 14.8 ppg down 5 1/2" CSG & flush cement to 3050' w/ 70 lb mud. Wait on cement. Tag cement at 2938'. POOH w/ TBG. Spot 25 sxs class "C" neat from 1592'-1342'. POOH w/ TBG. Go in hole &

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED DF FINNEY

TITLE Administrative Supervisor

DATE September 10, 19

APPROVED BY

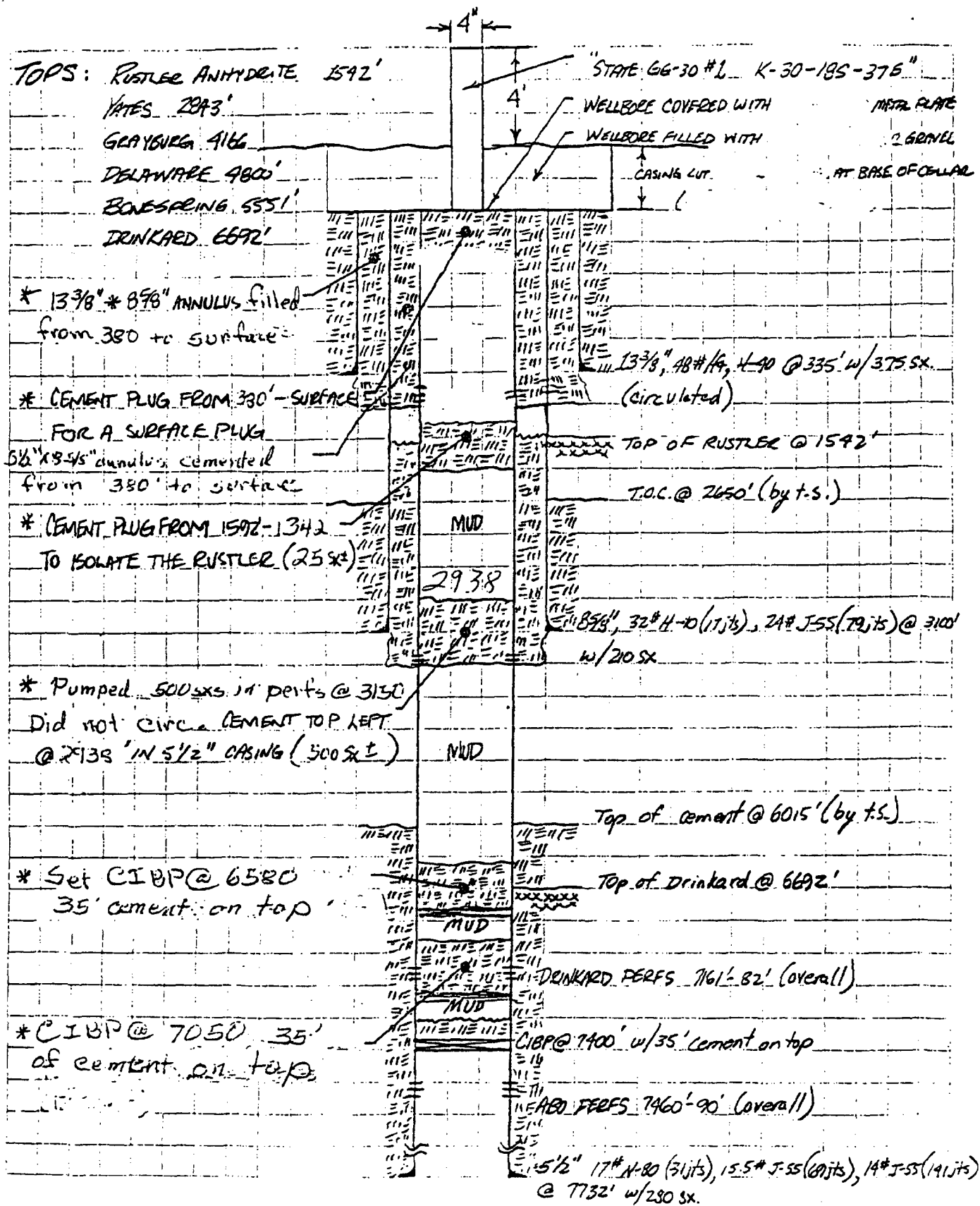
R. D. Gault
OIL & GAS INSPECTOR

DATE OCT 28 1987

CONDITIONS OF APPROVAL (IF ANY)

State GG-30 No. 1
Pg 2

perf w/ 4 spf at 380'. Establish circulation. Pump 240 sxs
class "C" neat mixed 14.3 ppg down csg & circulate out. Lift
cement in 5 1/2" csg at surface. Install P&H marker



Made By

JAP

Conoco Inc.

Calculation Sheet

Job No.

Checked By

Date 26 JANUARY, 87

Title STATE GG-30 #1

Field GOODWIN

Page

of

Final P&A CONDITIONS

State NEW MEXICO

2310' FSL + 1650' FWL SEC 30, T-185, R-37E

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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-85

3a. Indicate Type of Lease
State ☒ Fee ☐
3. State Oil & Gas Lease No.
A-3071

SUNDY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. <input checked="" type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER: <u>Shut in</u>	7. Unit Agreement Name
2. Name of Operator <u>Conoco Inc.</u>	8. Farm or Lease Name <u>State 66-30</u>
3. Address of Operator <u>P.O. Box 460, Hobbs, N.M. 88240</u>	9. Well No. <u>1</u>
4. Location of Well UNIT LETTER <u>K</u> <u>2310</u> FEET FROM THE <u>South</u> LINE AND <u>1650</u> FEET FROM THE <u>West</u> LINE, SECTION <u>30</u> TOWNSHIP <u>28 N</u> RANGE <u>37 E</u> N.M.P.M.	10. Field and Pool, or Wildcat <u>Goodwin Dinkard</u>
15. Elevation (Show whether DF, RT, GR, etc.)	12. County <u>Dea</u>

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input checked="" type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPER. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1703.

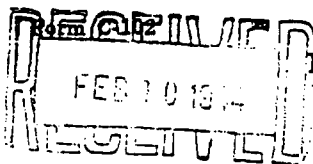
1. merru. RELH w/2 - 3/8" workstring in 7360' & Circ wellbore w/mud. Spot Cement plug from 7232' - 7111'. Spot 100' Cmt plug from 6742' - 6642'.
2. Spot 2 bbls of 10% acetic acid from 3066' - 3150' & pull workstring out of hole. Rig up wireline & perf @ 3150'.
3. Attempt to establish pump-in rate down 5-1/2" csg w/mud. If circ is broken, circ 5-1/2" x 8-5/8" annulus w/cmt - 500 SX-. If circ not broken & pump-in rate obtained - squeeze 50-75 SX cmt into perf @ 3150'. Displace cmt to 3050' in 5-1/2" csg. If a pump-in rate not obtained Spot a 100' cement plug in 5-1/2" csg from 3150' - 3050' w/2 3/8" workstring

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED K. J. Firmin Administrative Supervisor DATE Feb. 23, 1987

ORIGINAL SIGNED BY JERRY SEXTON
APPROVED BY DISTRICT SUPERVISOR TITLE DISTRICT SUPERVISOR DATE MAR 3 1987

4. Spot a 100' cement plug from 1592' - 1492'. Log TOC @ 1492'.
Spot a cement plug from 100' - surface.
5. Fill 8 - $\frac{5}{8}$ " x 13 - $\frac{3}{8}$ " annulus to surface with cement through 1" pipe.
6. Cut off well head & install P+A marker.
7. A proposed P+A sketch is attached.



NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

MISCELLANEOUS NOTICES

HOBBS OFFICE
Submit this notice in duplicate to the Oil Conservation Commission or its proper agent before the work specified is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of notice by checking below:

NOTICE OF INTENTION TO TEST CASING SHUT-OFF		NOTICE OF INTENTION TO SHOOT OR CHEMICALLY TREAT WELL	
NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING	
NOTICE OF INTENTION TO REPAIR WELL		NOTICE OF INTENTION TO PLUG WELL	<input checked="" type="checkbox"/>
NOTICE OF INTENTION TO DEEPEN WELL			

Lovington, New Mexico

Place

February 8, 1944

Date

OIL CONSERVATION COMMISSION,
Santa Fe, New Mexico.

Gentlemen:

Following is a notice of intention to do certain work as described below at the

Gordon M. Cane THE BERRY State Well No. 1A in NE SE
Company of Operator Lease
of Sec. 30, T. 13 S, R. 37 E, N. M. P. M., Wilcox Field,
Lea County.

FULL DETAILS OF PROPOSED PLAN OF WORK

FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS OF THE COMMISSION

To shut off estimated five gallons hourly flow of sulfur water encountered at approximately 4600 feet, I propose to cement from bottom of hole at 4600 feet with 15 cxs. Also, well is being shut down pending further orders--on completion of cementing.

Approved FEB 01 1944, 19____
except as follows:

OIL CONSERVATION COMMISSION,
By Ray Yarrbrugh
Title OIL & GAS INSPECTOR

Gordon M. Cane
Company of Operator
By Gordon M. Cane
Position Owner
Send communications regarding well to
Name Owner
Address Box 597,
Lovington, N. M.

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

MISCELLANEOUS REPORTS ON WELLS

JUL 7 - 1942

HOBBBS OFFICE

Submit this report in triplicate to the Oil Conservation Commission or its proper agent within ten days after the work specified is completed. It should be signed and sworn to before a notary public for reports on beginning drilling operations, results of shooting well, results of test of casing shut-off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. Reports on minor operations need not be signed and sworn to before a notary public. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below:

REPORT ON BEGINNING DRILLING OPERATIONS	REPORT ON REPAIRING WELL
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL	REPORT ON PULLING OR OTHERWISE ALTERING CASING
REPORT ON RESULT OF TEST OF CASING SHUT-OFF	REPORT ON DEEPENING WELL
REPORT ON RESULT OF PLUGGING OF WELL <input checked="" type="checkbox"/>	

Box 597, Lovington, N.M. July 6, 1942

OIL CONSERVATION COMMISSION,
SANTA FE, NEW MEXICO.

Gentlemen:

Following is a report on the work done and the results obtained under the heading noted above at the

Gordon M. Cone Superior State Well No. 1 in the
Company or Operator Lease
NE SW of Sec. 30, T. 12S, R. 37E, N. M. P. M.,
Wild Cat Field, Lea County.

The dates of this work were as follows: July 6, 1942

Notice of intention to do the work was (was not) submitted on Form C-102 on July 6, 1942
and approval of the proposed plan was (was not) obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

Filled hole from 310' (T.D.) with mud to 250'. Bridged and set cement plug of 25 sacks cement at 250' to protect surface water. Filled the remaining hole with mud to surface. Cemented regulation marker with 12 sacks cement in top of hole.

Witnessed by Alfred Gooley Name Brewer Drilling Co. Driller Title

Subscribed and sworn before me this 8

I hereby swear or affirm that the information given above is true and correct.

July day of July, 1942

Name Gordon M. Cone

Position Owner

Representing Gordon M. Cone Company or Operator

My commission expires November 20, 1943

Address Box 597, Lovington, N.M.

Remarks:

OIL & GAS

Title

C/KAD

PLUG & ABANDONMENT FORM

API NO. 30-005-00079
OPERATOR Mack Energy Corp.
LEASE NAME State GG-30
WELL NO. 2
SEC. 30 TWP. 18 RANGE 37 UNIT 11

Date plugging operations began - 12-20-96
Date plugging operations completed - 1-2-96
Name of plugging company - Pride

Comments: _____

Signed By: Garry W. Hill
Date: 1-2-96

APD-000

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NEW MEXICO OIL CONSERVATION COMMISSION

Form O-102
Supersedes Old
O-102 and O-103
Effective 1-1-85

<p>SUNDRY NOTICES AND REPORTS ON WELLS</p> <p><small>DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT TO DRILL" FORM O-101 FOR SUCH PROPOSALS.</small></p>		<p>13. Indicate Type of Lease State <input type="checkbox"/> Fee <input checked="" type="checkbox"/></p>
<p>1. <input checked="" type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER</p>		<p>14. State Oil & Gas Lease No.</p>
<p>2. Name of Operator <u>Conoco Inc</u></p>		<p>7. Unit Agreement Name</p>
<p>3. Address of Operator <u>P.O. Box 460 - Hobbs NM 88240</u></p>		<p>8. Farm or Lease Name <u>Goodwin "30"</u></p>
<p>4. Location of Well UNIT LETTER <u>F</u> <u>1980'</u> FEET FROM THE <u>North</u> LINE AND <u>1980</u> FEET FROM THE <u>West</u> LINE. SECTION <u>30</u> TOWNSHIP <u>18S</u> RANGE <u>37E</u> NMPM.</p>		<p>9. Well No. <u>2</u></p>
<p>15. Elevation (Show whether DF, RT, GR, etc.)</p>		<p>10. Field and Pool, or Wildcat <u>Arkansas Junction SA</u></p>
<p>12. County <u>Lea</u></p>		

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

<p>NOTICE OF INTENTION TO:</p>		<p>SUBSEQUENT REPORT OF:</p>	
<p>PERFORM REMEDIAL WORK <input type="checkbox"/></p>	<p>PLUG AND ABANDON <input type="checkbox"/></p>	<p>REMEDIAL WORK <input type="checkbox"/></p>	<p>ALTERING CASING <input type="checkbox"/></p>
<p>TEMPORARILY ABANDON <input type="checkbox"/></p>	<p>CHANGE PLANS <input type="checkbox"/></p>	<p>COMMENCE DRILLING OPER. <input type="checkbox"/></p>	<p>PLUG AND ABANDONMENT <input checked="" type="checkbox"/></p>
<p>PULL OR ALTER CASING <input type="checkbox"/></p>	<p>OTHER <input type="checkbox"/></p>	<p>CASING TEST AND CEMENT JOB <input type="checkbox"/></p>	<p>OTHER <input type="checkbox"/></p>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1703.

MIRU. Attempt to fish rods due to paraffin. G-I H w/ 5 1/2" csq scraper to 5685'. Circ hole w/ 130 bbls 9.5 ppq mud (25 sxs salt gel/100 bbl 9 ppq Sine) Spot 10 sxs class "C" neat cement from 5685'-5585' to isolate Clearfork. Set CIBP at 4574'. Spot 10 sxs class "C" neat cement from 4574'-4474'. Spot 50 sxs class "C" neat from 3246'-2746' to isolate 3 7/8" csq shoe & Yates. Spot 25 sxs class "C" neat cement from 1626'-1376' to isolate top of the anhydrite. Perf 2 squeeze holes thru 5 1/2" csq & 3 7/8" csq to 405'. Pump 9.5 ppq mud down 5 1/2" csq & establish circulation. Pump 230 sxs class "C" neat down 5 1/2" csq and circulate cement. Left cement in 5 1/2" csq at surface. Install P&N marker

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

<p>SIGNED <u>W. L. F. FINNEY</u></p>	<p>TITLE <u>Administrative Supervisor</u></p>	<p>DATE <u>6/14/87</u></p>
<p>APPROVED BY <u>[Signature]</u></p>	<p>TITLE <u>OIL & GAS INSPECTOR</u></p>	<p>DATE <u>JUL 14 1987</u></p>
<p>CONDITIONS OF APPROVAL, IF ANY:</p>		

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LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

3a. Indicate Type of Lease	
State <input type="checkbox"/>	Fee <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.	

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

1. <input checked="" type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL OTHER: <u>shut-in</u>	7. Unit Agreement Name
2. Name of Operator <u>CONOCO INC.</u>	8. Form or Lease Name <u>Goodwin "30"</u>
3. Address of Operator <u>P. O. Box 460, Hobbs, N.M. 88240</u>	9. Well No. <u>2</u>
4. Location of Well UNIT LETTER <u>F</u> <u>1980</u> FEET FROM THE <u>North</u> LINE AND <u>1980</u> FEET FROM THE <u>West</u> LINE, SECTION <u>30</u> TOWNSHIP <u>18S</u> RANGE <u>37E</u> NMPM.	10. Field and Pool, or Wildcat <u>Arkansas Junction S/A</u>
11. Elevation (Show whether DF, RT, GR, etc.)	12. County <u>Lea</u>

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data
NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input checked="" type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPER. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	OTHER <input type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1703.

- ① MIRU. POOH w/tbg & rods
- ② Spot 2sxs @ PBD (5685') Est TOC @ 5665'. Spot 21sxs cmt plug from 4726'-4513' to isolate San Andres.
- ③ Spot 10sxs from 3150'-3250' to isolate 8 5/8" shoe. Spot 10sxs cmt from 2913'-2813' to isolate top of the Yates.
- ④ Spot 10sxs from 1506'-1606' to isolate top of the anhydrite. Perf @ 405' w/ 4 JSPP thru 5 1/2" & 8 5/8". Pump cmt thru both annuli and circ. to surface. Cement displaced to 305' inside 5 1/2" csg.
- ⑤ Spot 10sxs from 100' to surface.
- ⑥ Cut off wellhead, install P & A marker and rig down.
- ⑦ A proposed P & A sketch is attached.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED [Signature] Administrative Supervisor DATE 12-4-86

ORIGINAL SIGNED BY JERRY SEXTON

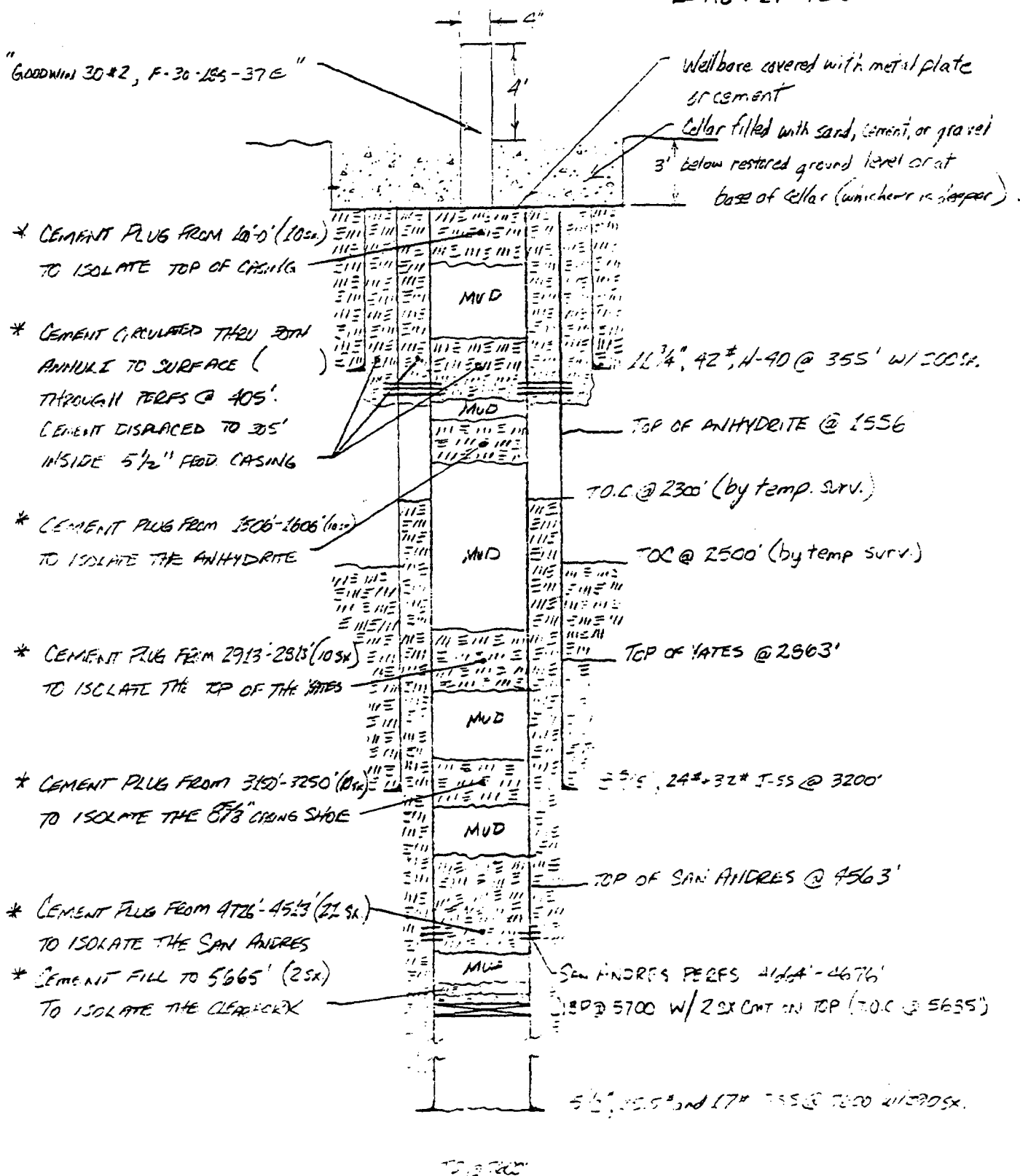
APPROVED BY [Signature] DISTRICT SUPERVISOR TITLE DATE DEC 8 1986

CONDITIONS OF APPROVAL, IF ANY: SEE ABOVE

Nmoco-Hobbs(3) File

ELEV: 3750' DF
ZERO: 14' AGL

"GOODWIN 30 #2, F-30-285-376"



12-1-86

GOODWIN 30 #2
PROPOSED P&A CONDITIONS

Submit 3 Copies
to Appropriate
District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO.
30-025-20663

5. Indicate Type of Lease
STATE ☒ FEE ☐

6. State Oil & Gas Lease No.
E-6581

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT"
(FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name

State GG-30

1. Type of Well:
OIL WELL ☒ GAS WELL ☐ OTHER ☐

8. Well No.
3

2. Name of Operator
Mack Energy Corporation

3. Address of Operator
P. O. Box 960, Artesia, NM 88211-1354 (505) 748-1288

9. Pool name or Wildcat
Goodwin Drinkard

4. Well Location
Unit Letter N : 660 Feet From The South Line and 1650 Feet From The West Line
Section 30 Township 18-S Range 37-E NMPM Lea, NM County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐ REMEDIAL WORK ☐ ALTERING CASING ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐ COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☒
PULL OR ALTER CASING ☐ CASING TEST AND CEMENT JOB ☐
OTHER: ☐ OTHER: ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

- 1) Set 5½ CIBP @ 6930' Cap W/35' cement
- 2) Load hole W/mud
- 3) Cut 5½ casing @ 4292' Pull out of hole
- 4) Spot 40 sacks cement, plug @ 5½ stub 4352' W.O.C., Tag cement top @ 4190'
- 5) Spot 30 sacks cement, plug @ 8-5/8 shoe 3248' W.O.C. No tag, respot cement plug W/60 sacks cement @ 3238' W.O.C., Tag cement top @ 3066'
- 6) Cut 8-5/8 casing @ 823', pull out of hole
- 7) Spot 35 sacks cement, plug @ 1760'
- 8) Spot 45 sacks cement, plug @ 8-5/8 stub 877' W.O.C., Tag cement top @ 804'
- 9) Spot 80 sacks cement, plug @ 13-3/8 shoe 417' W.O.C., Tag cement top @ 368' Respot, plug W/ 40 sacks cement W.O.C., Tag cement top @ 290'
- 10) SPot 15 sacks cement @ surface, set PA marker

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Edwina L. Leach TITLE District Secretary DATE 12/30/96

TYPE OR PRINT NAME

TELEPHONE NO.

(This space for State Use)

APPROVED BY Johnny Robinson TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

NO. OF COPIES RECEIVED	
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LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease State <input checked="" type="checkbox"/> Fee <input type="checkbox"/>
5. State Oil & Gas Lease No. 8-1535-1/2
7. Unit Agreement Name
8. Farm or Lease Name State 30
9. Well No. 1
10. Field and Pool, or Wildcat Undesignated
11. Elevation (Show whether DF, RT, GK, etc.) G.L. 3738.2
12. County Lea

SUNDRY NOTICES AND REPORTS ON WELLS <small>(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT TO DRILL" (FORM C-101) FOR SUCH PROPOSALS.)</small>	
1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER- Dry Hole	
2. Name of Operator J. S. Abercrombie Mineral Co., Inc.	
3. Address of Operator P. O. Box 27339, Houston, Texas 77027	
4. Location of Well UNIT LETTER J 1980 FEET FROM THE South LINE AND 1980 FEET FROM THE East LINE, SECTION 30 TOWNSHIP 18S RANGE 37E N.M.P.M.	
15. Elevation (Show whether DF, RT, GK, etc.) G.L. 3738.2	

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data
NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input checked="" type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	OTHER <input type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Plugging operations started 3-6-79

Spotted plug No.1 @ 7400'-7046' w/ 35 sx Class "c" w/ 2% CACL₂

Spotted Plug No.2 @ 6900'-6548' w/ 35 sx Class "c" w/2% CACL₂. Tagged top of plug @ 6809'

Respotted Plug No.2 setting C.I.B.P. @6880' w/35' cement on top of plug

Circulated well with 10#/Gal brine containing 25 lbs gel per barrel.

Spotted Plug No.3 @ 6000'-5500' w/50 sx Class "c" w/ 2% CACL₂

Shot 5 1/2" casing off at 5218' and pulled same.

Spotted Plug No.4 @ 5197'-5050' w/ 50 sx Class "c" w/ 2% CACL₂. Tagged Plug @ 5101'.

Spotted plug No.5 @ 4470'-4329' w/ 50 sx Class "c" w/ 2% CACL₂.

Spotted plug No.6 @ 4100'-3951' w/ 50 sx Class "c" w/ 2% CACL₂.

Spotted plug No. 7 @ 3050'-2900' w/ 50 sx Class "c" w/ 2% CACL₂.

Spotted Plug No.8 @ 1500'-1371' w/ 35 sx Class "c" w/ 2% CACL₂.

Spotted Plug No.9 @ Surface w/10 sx Class "c" w/ 2% CACL₂.

Installed Dry Hole Marker

Plugging operations were witnessed by a representative of the NMOCC and were completed 3-12-79

I, hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED R.L. Felt R.L. Felt TITLE Production Manager DATE 4/18/79

APPROVED BY [Signature] TITLE [Signature] DATE [Signature]

CONDITIONS OF APPROVAL, IF ANY:

Submit 3 Copies To Appropriate District
Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-103
Revised March 25, 1999

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>	WELL API NO. 30-025-34786
2. Name of Operator EnerQuest Resources, LLC	5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
3. Address of Operator P.O. Box 11150, Midland, TX 79702	6. State Oil & Gas Lease No. VA-1899
4. Well Location Unit Letter K : 1650 feet from the South line and 1650 feet from the West line Section 30 Township 18S Range 37E NMPM Lea County 10. Elevation (Show whether DR, RKB, RT, GR, etc.) 3737'	7. Lease Name or Unit Agreement Name: Goodwin "30"
8. Well No. 1	
9. Pool name or Wildcat Goodwin (Abo)	

11. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data	
NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPLETION <input type="checkbox"/> OTHER: <input type="checkbox"/>	SUBSEQUENT REPORT OF: REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/> COMMENCE DRILLING OPNS. <input type="checkbox"/> PLUG AND ABANDONMENT <input checked="" type="checkbox"/> CASING TEST AND CEMENT JOB <input type="checkbox"/> OTHER: <input type="checkbox"/>

12. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation.

4/20/00 Notified OCD, Gary Wink. MIRU plugging equipment.

4/24/00 Tagged CIBP @ 7,375'. Pumped 25 sx C cmt 7,375 - 7,128', displaced w/ mud. Pumped 25 sx C cmt @ 6,919'. WOC and tagged cmt @ 6,640'. Circulated hole w/ mud

4/25/00 Pumped 25 sx C cmt 4,591 - 4,344'. Cut 5-1/2" csg @ 3,385'. POOH w/ 5-1/2". Pumped 50 sx C cmt @ 3,437'.

4/26/00 Tagged plug @ 3,302'. Pumped 175 sx C cmt 1,702 - 1,021'. WOC and tagged plug @ 1,302'. Pumped 15 sx C cmt 60' to surface. RDMO.

5/3/00 Cut off wellhead and capped well, installed marker. Covered pit and cellar, cut anchors. Leveled pit.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Christopher P. Renaud TITLE Vice President DATE 5/6/00

Type or print name Christopher P. Renaud

Telephone No. 9156853116

(This space for State use)

APPROVED BY [Signature] TITLE Asst. Dir. DATE 9-26-00

Conditions of approval, if any:

GWW



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

Gary Johnson
GOVERNOR
Jennifer A. Salisbury
CABINET SECRETARY

May 24, 2000

Company name: Enerquest Resources, LLC

Address: P. O. Box 11150

City, State, Zip, Phone: Midland, TX 79702

Form C-103, Report of Plugging for your Goodwin "30" #1-K (30-185-37)

Can not be approved until a Division representative has made an inspection of the location and found it to in compliance of Division Rule and Regulations. Please check each item in the space provided to indicate that the work has been done.

1. All pits have been remediated in compliance with Division "Pit Remediation Guidelines".
2. Rat hole and cellar have been filled and leveled.
3. A steel marker at least 4" in diameter and at least 4' above ground level has been set in concrete. It must show the OPERATOR NAME, LEASE NAME, WELL NUMBER, QUARTER/QUARTER LOCATION OR UNIT LETTER, SECTION, TOWNSHIP, AND RANGE.
4. The location has been leveled as nearly as possible to original top ground contour and has been cleared of all junk and equipment.
5. The dead men and tie downs have been cut and removed.
6. If a one well lease or last remaining well on lease, the battery and pit location(s) have been remediated to Division "Pit Remediation Guidelines" and all flowlines, production equipment and junk removed from lease or well location.

The above are minimum requirements and no plugging bond will be released until all locations for plugged and abandoned wells have been inspected and Form C-103 approved. When all of the work outlined above has been done, please notify this office by filling in the blank form below and returning this letter to us so a Division representative will not have to make more than one trip to a location.

Sincerely

OIL CONSERVATION DIVISION

Chris Williams
Chris Williams, District I Supervisor

FILL IN BELOW AND RETURN TO: Oil Conservation Division, 1625 N. French Dr., Hobbs, NM 88240.

I certify that the above work has been done and the well or lease referenced above is ready for inspection and approval.

Chris Renard *Chris Renard - VP* *9/12/00* *9156853116*
OPERATOR NAME & TITLE DATE PHONE

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OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION
NOTES OFFICE O. C. C.

Feb 23 12 44 PM '65

Form C-103
 Supersedes Old
 C-102 and C-103
 Effective 1-1-65

5a. Indicate Type of Lease	
State <input checked="" type="checkbox"/>	Fee <input type="checkbox"/>
5. State Oil & Gas Lease No.	
7. Unit Agreement Name	
8. Farm or Lease Name	
Grain State	
9. Well No.	
#1	
10. Field and Pool, or Wildcat	
Goodwin	
12. County	
Lee	

SUNDRY NOTICES AND REPORTS ON WELLS <small>(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)</small>	
1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER- <input type="checkbox"/>	
2. Name of Operator Steve Gosie	
3. Address of Operator 918 Lamar, Wichita Falls, Texas.	
4. Location of Well UNIT LETTER P 600 FEET FROM THE S LINE AND 600 FEET FROM THE E LINE, SECTION 25 TOWNSHIP 18 RANGE 36 NMPM.	
15. Elevation (Show whether DF, RT, GR, etc.)	

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data
 NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input checked="" type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOBS <input type="checkbox"/>	OTHER <input type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

#1 - A 25 sx. plug was spotted in the stub of 8-1/8" Casing at 1984'.

#2 - A 25 sx. plug was spotted in base of 11-1/8" casing at 300'.

#3 - A 10 sx. plug was spotted in top of hole and a regulation marker was erected.

#4 - A Hole was loaded with mud laden fluid.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED *D. Stuken agent* TITLE **Asst. Manager** DATE **2-23-65**

APPROVED BY *Leslie V. Clements* TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

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LAND OFFICE	
OPERATOR	

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

Form O-105
Revised 1-1-65

5a. Indicate Type of Lease	
State <input checked="" type="checkbox"/>	Fee <input type="checkbox"/>
5. State Oil & Gas Lease No.	
A-1543	

1a. TYPE OF WELL		7. Unit Agreement Name	
OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input checked="" type="checkbox"/> OTHER _____ b. TYPE OF COMPLETION NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER _____		Graham-State	
2. Name of Operator		8. Farm or Lease Name	
Steve Gose - Oil & Gas Producer		Graham-State	
3. Address of Operator		9. Well No.	
918 Lamar Street Wichita Falls, Texas		1	
4. Location of Well		10. Field and Pool, or Wildcat	
		Goodwin	

UNIT LETTER P	LOCATED 660'	FEET FROM THE South	LINE AND 330'	FEET FROM
THE East LINE OF SEC. 25 TWP. 18S RGE. 36E NMPM				
12. County Lea				

15. Date Spudded 12-5-64	16. Date T.D. Reached 12-26-64	17. Date Compl. (Ready to Prod.) Dry & Abandoned	18. Elevations (DF, RKB, RT, GR, etc.) 3745 GL	19. Elev. Casinghead 3745
20. Total Depth 7490	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By 0-7490	23. Rotary Tools 0

24. Producing Interval(s), of this completion - Top, Bottom, Name None	25. Was Directional Survey Made Yes
--	---

26. Type Electric and Other Logs Run Dual Induction Laterolog Sonic GR - Microlog CBL-PDC	27. Was Well Cased No
---	---------------------------------

28. CASING RECORD (Report all strings set in well)					
CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
11-3/4"	42	310	15	250 sacks	None
8-5/8"	24# & 32#	3165	10-5/8	200 sacks	2134'
5-1/2"	14# & 15.5#	7489	7-7/8	650 sacks	4246'

29. LINER RECORD					30. TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
None					Run & Pkr set at various intervals & finally pulled.		

31. Perforation Record (Interval, size and number) See Attachment for perforations	32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
	DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
	See Attachment	

33. PRODUCTION							
Date First Production Dry & Abandoned		Production Method (Flowing, gas lift, pumping - Size and type pump)				Well Status (Prod. or Shut-in) D & A	
Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API (Corr.)	

34. Disposition of Gas (Sold, used for fuel, vented, etc.)	Test Witnessed By
--	-------------------

35. List of Attachments

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.		
SIGNED C. L. Dinkelman	TITLE President	DATE 4-15-65

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission not later than 29 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Anhy <u>2609</u>	T. Canyon _____	T. Ojo Alamo _____	T. Penn. "B" _____
T. Salt <u>2609</u>	T. Strawn _____	T. Kirtland-Fruitland _____	T. Penn. "C" _____
B. Salt _____	T. Atoka _____	T. Pictured Cliffs _____	T. Penn. "D" _____
T. Yates _____	T. Miss _____	T. Cliff House _____	T. Leadville _____
T. 7 Rivers _____	T. Devonian _____	T. Menefee _____	T. Madison _____
T. Queen <u>3775</u>	T. Silurian _____	T. Point Lookout _____	T. Elbert _____
T. Grayburg <u>4163</u>	T. Montoya _____	T. Mancos _____	T. McCracken _____
T. San Andres <u>4523</u>	T. Simpson _____	T. Gallup _____	T. Ignacio Qtzte _____
T. Glorieta _____	T. McKee _____	Base Greenhorn _____	T. Granite _____
T. Paddock _____	T. Ellenburger _____	T. Dakota _____	T. _____
T. Blinberry _____	T. Gr. Wash _____	T. Morrison _____	T. _____
T. Tubb _____	T. Granite _____	T. Todilto _____	T. _____
T. Drinkard <u>7175</u>	T. Delaware Sand _____	T. Entrada _____	T. _____
T. Abo <u>7248</u>	T. Bone Springs _____	T. Wingate _____	T. _____
T. Wolfcamp _____	T. _____	T. Chinle _____	T. _____
T. Penn. _____	T. _____	T. Permian _____	T. _____
T. Cisco (Bough C) _____	T. _____	T. Penn. "A" _____	T. _____

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
3175	3775	600	Dk gray silty shale				
3775	3800	25	Fi to Lt tan sub ang sd - sli oil sh.				
3800	4163	363	Dk gry sh. interbedded w/thin slty sd & buff L.S. strks.				
4163	4523	360	Tan to Buff to lt gry Dolomite L.S.				
42 4523	5040	517	Tan to Buff sdy to sucrosic Dolomite				
5342	7175	1833	Fi Lt gry sd w/strks blk silicious L.S.				
7175	7247	72	Lt tan to tan Xyln dolo sli sh of oil				
7247	7493	246	WHT Xyln Dolomite Sli Sh of oil				

Marcum Drilling Company rigged up spudded 12-5-64 T.D. 7490 12-26-64 ran 7510 feet threads on 5½ inch 14 and 15 pound casing set at 4898 cement was 650 sacks, plugged down at 8:35 A.M. 12-29-64. Moved in Robinson Well Service on 1-10-65 perforated two holes per foot from 7478 to 7488 set retriavable packer at 7448 spotted acid over perforation pump 750 barrels mud acid to pressures up to 4800 pounds, swab dry. Unseeded packer pulled tubing set permanant bridge plug at 7465. Perforated one shot per foot from 7417 to 7436 and 7444 to 7450. Total 31 shots. Set retriavable packer at 7381 swab down no show. Acidized with 1850 gallons of mud acid, swab down no show of oil. Reacidized with 7500 gallons of retarded acid. Packer set at 7388. Swab dry, no show of oil. Drill cast iron bridge plug perforated 7460 to 7474 with 28 holes.. Set retriavable packer at 7476. Swab dry, treated with 5,000 gallons of mud acid, swab well dry with no show of oil. Pull packer and tubing perforated 5834 to 5852 and from 5858 to 5870, 5914 to 5932 and 6032 to 6040 with two jet shots per foot. Ran tubing, packer and retriavable bridge plug. Set bridge plug at 6054 and packer at 5811, swab dry and no show. Pumped 5½ barrels of parifin solvent into tubing, soaked for 1½ hours. Filled annulus with 9 pound brine water, released packers starting pumping down tubing circulating entire system with brine. Set packer at 6000 feet, started swabbing fluid, no show, no parifin. Reset packer at 5894 and swabbed well, no show. Unseated packer and retriavable bridge plug, laid down packer and ran tubing open ended to 7341, spotted 25 sacks Class A Neet Cement at 7115 to 7341. Spotted 25 sacks Class A Neet Cement at 5708 to 5487, pulled out of hole and went in with Dia-log, shot 5½ casing off at 4246 with jet cutter. Pulled 5½ inch casing, well officially dry and abandoned 1-28-65 with no shows of gas, very slight show of oil.

Submit 3 Copies
to Appropriate
District Office

State of New Mexico
Energy Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO.
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name STATE WM E
8. Well No. 2
9. Pool name or Wildcat GOODWILL
10. Elevation (Show whether DF, RKB, RT, GR, etc.) 3749 DF

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT"
(FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER SWD 182
2. Name of Operator UNICHEM INTERNATIONAL Inc
3. Address of Operator P.O. BOX 1499 HOBBS NM 88240
4. Well Location Unit Letter D : 660' Feet From The NORTH Line and 660' Feet From The WEST Line Section 31 Township 18S Range 37E NMPM LEA County
10. Elevation (Show whether DF, RKB, RT, GR, etc.) 3749 DF

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data			
NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input checked="" type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

SEE ATTACHED (2) PAGES

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE <u>Pete M. Turner</u>	TITLE <u>MANAGER - HOBBS</u>	DATE <u>3-14-91</u>
TYPE OR PRINT NAME <u>PETE M. TURNER</u>	TELEPHONE NO. <u>505 597-4994</u>	

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

WME PLUG JOB

Pg 1 of 2

2/11/91 RELEASED PACKER AND START OUT OF THE HOLE. 93 JOINTS OF 2 3/8 TUBING LAYED DOWN.

2/12/91 PICKED UP 4 3/4 BIT AND BIT SCRAPER AND START INTO THE HOLE. HAD PICKED UP 107 JOINTS OF TUBING WHEN HIT SOMETHING. PICKUP 4 DRILL COLLARS AND GO BACK INTO THE WELL. WORK THE BIT INTO THE 5 1/2 LINER. RIG UP STAR TOOL AND START DRILLING.

2/13/91 DRILL FOR ONE HOUR AND MADE 4". PULL OUT OF THE HOLE WITH TUBING AND COLLARS AND FOUND ONE CONE MISSING. RUN 3 1/2 MAGNET ON SANDLINE TO TRY AND GET CONE COULD NOT GET INTO THE 5 1/2 LINER. PICKUP 4 1/2 BIT AND 4 3/4 RIMMER. GO INTO THE WELL AND RIMMED OFF THE TOP OF THE LINER. PICKED UP A 4 1/2 MAGNET. GO BACK INTO THE WELL. PULLED BACK OUT, DID NOT GET CONE.

2/14/91 PICK UP POORBOY WIRE CATCHES AND GO IN THE HOLE TO 3,343 AND MILLED TO 3,352. PULLED OUT, DID NOT HAVE THE CONE BUT HAD SEVERAL PIECES OF METAL THAT LOOKED LIKE PART OF THE CASING.

2/15/91 PICK UP 5 1/2 PACKER AND GO INTO WELL TO SEE IF WE COULD PUMP INTO WELL. COULD NOT PULL PACKER OUT AND GO BACK INTO WELL WITH 4 3/4 MILL. MADE 8" OF NEW HOLE PULLED OUT THE MILL. BACK INTO THE HOLE WITH A 4 1/2" BIT.

2/18/91 CHECK WELL FOR PRESSURE OR FLOW "NONE" START DRILLING AT 3,360 DRILLED TO 3,455. PULLED BIT OUT OF HOLE. PICKED UP 4 1/2 MILL AND START BACK INTO THE HOLE.

2/19/91 CHECK WELL FOR PRESSURE OR FLOW "NONE" REAMED OUT FROM 3,360 TO 3,455. MILLED 2 FEET IT STOPPED MILLING AT 3,457. PULLED OUT OF THE HOLE AND CHANGED MILLS.

2/20/91 CHECK WELL FOR PRESSURE OF FLOW "NONE" REAM FROM 3,419 TO 3,457 MILLED 3,460. PULLED OUT OF THE HOLE AND PUT 4 1/2 BIT ON.

2/21/91 CHECK WELL FOR PRESSURE OR FLOW "NONE" GOING INTO THE HOLE WITH THE BIT. HIT TWO TIGHT SPOTS. PULLED OUT OF THE HOLE AND PICKED UP 2 JOINTS OF WASH OVER PIPE WITH CUTWRIGHT SHOE ON BOTTOM. GO BACK INTO THE HOLE. WASHING OVER AT 3,361 AND WASH OVER 45". MILLING OVER SOMETHING VERY HARD AT 3,406 MILLED TO 3,408 AND PULL OUT OF THE 5 1/2 LINER.

2/22/91 CHECK FOR PRESSURE OR FLOW "NONE" FINISH GOING IN THE HOLE WITH THE WASH PIPE TO 3,352 AND COULD NOT GO ANY DEEPER. PULLED BACK OUT AND RAN A SLANT MILL ON THE TUBING AND WENT TO 3,393. STARTED MILLING TO 4,562 AND SHUT WELL IN, PUMPED INTO FORMATION. PULLED OUT OF HOLE.

2/25/91 BLEED WELL OFF. RUN 7 5/8 CEMENT RETAINER TO 2,828 AND

PAGE 2 OF 2

PUMP 375 SACKS OF CLASS C CEMENT . PULLED OUT OF RETAINER AND DUMP
25 SACKS OF CEMENT ON TOP OF THE RETAINER. CIRCULATE WELL WITH
BRINE MUD. RIG UP ROTARY WIRELINE AND PERFORATE AT 353".
CIRCULATION WAS ESTABLISHED PUMPED 100 SACKS OF CEMENT TO TOP OFF
WELL.

2/26/91 MARKER WAS ON WELL AND DEAD MEN CUT OFF.

Robert Lunn

Supplemental Information for Section VII –Injection Fluid
Analyses

Linam AGI Compressor

	Dry Gas Composition		
	Design	Low Case	High Case
Nitrogen	0.0288%	0.0288%	0.0288%
Methane	0.2842%	0.2842%	0.2842%
Carbon Dioxide	74.5936%	79.5936%	64.5936%
Ethane	0.0345%	0.0345%	0.0345%
Hydrogen Sulfide	25.0000%	20.0000%	35.0000%
Propane	0.0097%	0.0097%	0.0097%
i-Butane	0.0012%	0.0012%	0.0012%
n-Butane	0.0020%	0.0020%	0.0020%
i-Pentane	0.0010%	0.0010%	0.0010%
n-Pentane	0.0022%	0.0022%	0.0022%
Hexanes	0.0220%	0.0220%	0.0220%
Heptanes	0.0121%	0.0121%	0.0121%
Octanes	0.0046%	0.0046%	0.0046%
Nonanes	0.0016%	0.0016%	0.0016%
Decanes Plus	0.0023%	0.0023%	0.0023%
Water			
Methanol			
Total	100.0000%	100.0000%	100.0000%
<u>Total BETX Components</u>			
Benzene (incl. in C6)	0.0120%	0.0120%	0.0120%
Toluene (incl. in C7)	0.0037%	0.0037%	0.0037%
EthylBenzene (incl. in C8)	0.0004%	0.0004%	0.0004%
Xylenes (incl. in C8)	0.0001%	0.0001%	0.0001%
Subtotal BETX	0.0162%	0.0162%	0.0162%
<u>Other Sulfur Compounds (included with H2S)</u>			
Methyl Mercaptan	0.0042%	0.0042%	0.0042%
Ethyl Mercaptan	0.0031%	0.0031%	0.0031%
i-Propyl Mercaptan	0.0006%	0.0006%	0.0006%
Other Organic Sulfur	0.0019%	0.0019%	0.0019%
Subtotal Other Sulfur	0.0098%	0.0098%	0.0098%
Wet Gas Volume (MMscfd)	5.0	5.0	5.0
Percent Water Removal			
Percent Methanol Removal			
Design 5 MMscfd, Current 3.5			

Linam AGI Compressor

	Wet Gas Composition - Suction		
	Design	Low Case	High Case
Nitrogen	0.0253%	0.0253%	0.0253%
Methane	0.2495%	0.2495%	0.2495%
Carbon Dioxide	65.4719%	69.8588%	56.6974%
Ethane	0.0303%	0.0303%	0.0303%
Hydrogen Sulfide	21.9429%	17.5539%	30.7215%
Propane	0.0085%	0.0085%	0.0085%
i-Butane	0.0010%	0.0010%	0.0010%
n-Butane	0.0018%	0.0018%	0.0018%
i-Pentane	0.0009%	0.0009%	0.0009%
n-Pentane	0.0020%	0.0020%	0.0020%
Hexanes	0.0193%	0.0193%	0.0194%
Heptanes	0.0106%	0.0106%	0.0106%
Octanes	0.0041%	0.0041%	0.0041%
Nonanes	0.0014%	0.0014%	0.0014%
Decanes Plus	0.0020%	0.0020%	0.0020%
Water	12.1785%	12.1806%	12.1744%
Methanol	0.0500%	0.0500%	0.0500%
Total	100.0000%	100.0000%	100.0000%
<u>Total BETX Components</u>			
Benzene (incl. in C6)	0.0106%	0.0106%	0.0106%
Toluene (incl. in C7)	0.0033%	0.0033%	0.0033%
EthylBenzene (incl. in C8)	0.0003%	0.0003%	0.0003%
Xylenes (incl. in C8)	0.0001%	0.0001%	0.0001%
Subtotal BETX	0.0142%	0.0142%	0.0142%
<u>Other Sulfur Compounds (included with</u>			
Methyl Mercaptan	0.0037%	0.0037%	0.0037%
Ethyl Mercaptan	0.0027%	0.0027%	0.0027%
i-Propyl Mercaptan	0.0005%	0.0005%	0.0005%
Other Organic Sulfur	0.0017%	0.0017%	0.0017%
Subtotal Other Sulfur	0.0086%	0.0086%	0.0086%
Wet Gas Volume (MMscfd)	5.66	5.66	5.66
Percent Water Removal			
Percent Methanol Removal			
Design 5 MMscfd, Current 3.5			

Linam AGI Compressor

	Wet Gas Composition - Discharge		
	Design	Low Case	High Case
Nitrogen	0.0286%	0.0286%	0.0286%
Methane	0.2824%	0.2824%	0.2824%
Carbon Dioxide	74.1269%	79.0952%	64.1893%
Ethane	0.0343%	0.0343%	0.0343%
Hydrogen Sulfide	24.8436%	19.8748%	34.7809%
Propane	0.0097%	0.0097%	0.0097%
i-Butane	0.0012%	0.0012%	0.0012%
n-Butane	0.0020%	0.0020%	0.0020%
i-Pentane	0.0010%	0.0010%	0.0010%
n-Pentane	0.0022%	0.0022%	0.0022%
Hexanes	0.0219%	0.0219%	0.0219%
Heptanes	0.0120%	0.0120%	0.0120%
Octanes	0.0046%	0.0046%	0.0046%
Nonanes	0.0016%	0.0016%	0.0016%
Decanes Plus	0.0023%	0.0023%	0.0023%
Water	0.6183%	0.6188%	0.6184%
Methanol	0.0074%	0.0074%	0.0075%
Total	100.0000%	100.0000%	100.0000%
<u>Total BETX Components</u>			
Benzene (incl. in C6)	0.0120%	0.0120%	0.0120%
Toluene (incl. in C7)	0.0037%	0.0037%	0.0037%
EthylBenzene (incl. in C8)	0.0004%	0.0004%	0.0004%
Xylenes (incl. in C8)	0.0001%	0.0001%	0.0001%
Subtotal BETX	0.0161%	0.0161%	0.0161%
<u>Other Sulfur Compounds (included with</u>			
Methyl Mercaptan	0.0042%	0.0042%	0.0042%
Ethyl Mercaptan	0.0031%	0.0031%	0.0031%
i-Propyl Mercaptan	0.0006%	0.0006%	0.0006%
Other Organic Sulfur	0.0019%	0.0019%	0.0019%
Subtotal Other Sulfur	0.0098%	0.0098%	0.0098%
Wet Gas Volume (MMscfd)	5.00	5.00	5.00
Percent Water Removal	95%	95%	95%
Percent Methanol Removal	85%	85%	85%
Design 5 MMscfd, Current 3.5			

MOBILE ANALYTICAL LABORATORIES, INC.

P.O. BOX 69210
ODESSA, TEXAS 79769
432-337-4744

07/21/05

EXTENDED SULFUR ANALYSIS

LAB NO. 1385

DUKE ENERGY FIELD SERVICES
LINAM RANCH PLANT
ACID GAS

	ppm
Hydrogen Sulfide	235378.0
Carbonyl Sulfide	1.8
Methyl Mercaptan	66.9
Ethyl Mercaptan	34.6
Dimethyl Sulfide	2.7
Carbon Disulfide	5.9
I-Propyl Mercaptan	9.2
T-Butyl Mercaptan	0.5
N-Propyl Mercaptan	0.7
Methyl Ethyl Sulfide	1.4
S-Butyl Mercaptan/Thiophene	4.4
I-Butyl Mercaptan	1.5
Diethyl Sulfide	0.3
N-Butyl Mercaptan	0.3
Dimethyl Disulfide	0.8
1-Methyl Thiophene	0.0
2-Methyl Thiophene	0.0
Dimethyl Thiophene	0.0
Diethyl Disulfide	0.0
Trimethyl Thiophene	0.0
Undetermined Organic Sulfur	9.0
Total	235518.0

Test Methods: H₂S by Tutwiler, Other Sulfur compounds
by Capillary GC with SCD Detector ASTM D 5504.

Sampled 07/18/05 by: SR

Distribution:
Mr. Steven Boatenhamer

Jul 22 05 10:03a Mobile Labs

9153378781

P. 4

 MOBILE ANALYTICAL LABS, INC.
 P.O. BOX 69210
 ODESSA, TEXAS 79769-9210

07/21/05

GAS EXTENDED ANALYSIS

LAB # 1384

DUKE ENERGY FIELD SERVICES
 LINAM RANCH PLANT
 ACID GAS

	MOL %	GPM
HYDROGEN SULFIDE	23.5378	0.000
NITROGEN	0.1282	0.000
METHANE	0.3206	0.000
CARBON DIOXIDE	75.6976	0.000
ETHANE	0.0290	0.008
PROPANE	0.0053	0.001
ISO-BUTANE	0.0031	0.001
N-BUTANE	0.0114	0.004
ISO-PENTANE	0.0062	0.002
N-PENTANE	0.0043	0.002
NEOHXANE	0.0000	0.000
CYCLOPENTANE	0.0018	0.001
2-METHYLPENTANE	0.0009	0.000
3-METHYLPENTANE	0.0056	0.002
N-HEXANE	0.0014	0.001
METHYLCYCLOPENTANE	0.0024	0.001
BENZENE	0.1341	0.037
CYCLOHEXANE	0.0046	0.002
2-METHYLHEXANE	0.0193	0.009
3-METHYLHEXANE	0.0013	0.001
DIMETHYLCYCLOPENTANES	0.0020	0.001
N-HEPTANE	0.0006	0.000
METHYLCYCLOHEXANE	0.0017	0.001
TRIMETHYLCYCLOPENTANES	0.0057	0.002
TOLUENE	0.0447	0.015
2-METHYLHEPTANE	0.0038	0.002
3-METHYLHEPTANE	0.0010	0.001
DIMETHYLCYCLOHEXANES	0.0036	0.002
N-OCTANE	0.0008	0.000
ETHYL BENZENE	0.0057	0.002
M&P-XYLENES	0.0003	0.000
O-XYLENE	0.0000	0.000
C9 NAPHTHENES	0.0022	0.001
C9 PARAFFINS	0.0047	0.003
N-NONANE	0.0009	0.001
N-DECANE	0.0008	0.000
UNDECANE PLUS	0.0066	0.005
Totals	100.0000	0.108

SPECIFIC GRAVITY 1.447
 GROSS DRY BTU 166.8
 GROSS WET BTU 163.8
 TOTAL MOL. WT. 41.681
 MOL. WT. C6+ 89.699
 SP. GRAVITY C6+ 3.559
 MOL. WT. C7+ 105.087
 SP. GRAVITY C7+ 4.545

SAMPLED 07/18/05
 6 PSI

MR. STEVEN BOATENHAMER

BASIS: 14.65 PSIA @ 60 °F

Supplemental Information for Section VII – Formation
Fluid Analyses.

Texas Formation Water Chlorides - Y-Z

Texas Water Development Board Report 157, 1972.

Full database available from Pecos River Software

Gary S. Swindell & Associates, Dallas, Texas, 214-987-0070

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County	Formation	Depth	Total solids ppm	Cl ppm
YOAKUM	ABO	8100	233450	147150
YOAKUM	CLEARFORK	5940	176407	108800
YOAKUM	CLEARFORK	6700	255416	160000
YOAKUM	CLEARFORK	7000		78800
YOAKUM	CLEARFORK	7800	9973	4900
YOAKUM	CLEARFORK	7800	88966	51765
YOAKUM	CLEARFORK	7800	160335	95200
YOAKUM	CLEARFORK	7800		173000
YOAKUM	CLEARFORK	7900	206440	128500
YOAKUM	DEVONIAN	9400	61965	37200
YOAKUM	GLORIETA	5650	112354	62500
YOAKUM	GLORIETA	5900	200025	120300
YOAKUM	GLORIETA LIME	5705	169170	102200
YOAKUM	LOWER CLEARFORK	4900	269119	170300
YOAKUM	OGALLALA FORM	128	1490	102
YOAKUM	SAN ANDRES	4900	76480	45800
YOAKUM	SAN ANDRES	4900	176000	104000
YOAKUM	SAN ANDRES	5100	79643	45200
YOAKUM	SAN ANDRES	5100	105877	61400
YOAKUM	SAN ANDRES	5110	326715	198600
YOAKUM	SAN ANDRES	5262	173633	104000
YOAKUM	SAN ANDRES	5300	25589	12800
YOAKUM	SAN ANDRES	5301	231166	138700
YOAKUM	SAN ANDRES	5301	269333	161600
YOAKUM	SAN ANDRES	5301	270333	162200
YOAKUM	SAN ANDRES	5301	270333	162200
YOAKUM	SAN ANDRES	5301	269333	161600
YOAKUM	SAN ANDRES	5301	229786	138600
YOAKUM	SAN ANDRES	5301	229722	137200
YOAKUM	SAN ANDRES	5350	170952	106300
YOAKUM	SAN ANDRES	5350	201844	124819

YOAKUM SAN ANDRES	5400 159097	96800
YOAKUM SILURO-DEVONIAN	11692 51416	30050
YOAKUM UPPER CLEARFORK	6573 47879	28000
YOAKUM UPPER CLEARFORK	6700 194756	120900
YOAKUM UPPER CLEARFORK	6700 108878	82800
YOAKUM UPPER CLEARFORK	6700 197308	122250
YOAKUM UPPER CLEARFORK	6761 210074	135500
YOAKUM WICHITA-ALBANY	8454	42000
YOAKUM WOLFCAMP	8448 117310	74200
YOAKUM WOLFCAMP	8448	114000
YOAKUM WOLFCAMP	8680 90020	53200
YOAKUM WOLFCAMP	11038 175835	71200
YOAKUM WOLFCAMP [LIME]	8556 69174	40100
YOAKUM WOLFCAMP LIME	8957 156757	95200
YOUNG BEND	3775 143429	89700
YOUNG BEND	4000 159305	98950
YOUNG BEND	4000 104496	63900
YOUNG BEND	4300 180118	112600
YOUNG CADDO	3466 140280	87000
YOUNG CADDO	3466 140280	87000
YOUNG CADDO	3476 137888	86270
YOUNG CADDO	3521 176909	109600
YOUNG CADDO	3537 158492	98000
YOUNG CADDO	3537 158492	98000
YOUNG CADDO	3597 157531	96800
YOUNG CADDO	3597 157531	96800
YOUNG CADDO	3640 158904	98500
YOUNG CADDO	3763 161460	100600
YOUNG CADDO	3862 154190	97000
YOUNG CADDO	3900 135831	84300
YOUNG CADDO	3950 166789	103400
YOUNG CADDO	4000 165635	103350
YOUNG CADDO	4000 165635	103350
YOUNG CADDO	4005 146801	90845
YOUNG CADDO	4075 158964	99100
YOUNG CADDO	4150 168020	104300
YOUNG CADDO	4183 162120	101500
YOUNG CADDO	4206 119714	73180
YOUNG CADDO	4277 170096	105600
YOUNG CADDO	4277 170096	105600
YOUNG CADDO	4307 171417	106500

YOUNG	CADDO	4307	171417	106500
YOUNG	CADDO	4489	161101	100100
YOUNG	CADDO	4490	161101	100100
YOUNG	CADDO	4500	196156	121594
YOUNG	CADDO	4630	164069	101800
YOUNG	CADDO	4630	164139	101800
YOUNG	CADDO	4710	151352	94000
YOUNG	CADDO	4710	151352	94000
YOUNG	CISCO	860	102787	63650
YOUNG	CISCO	860	102787	63650
YOUNG	LOWER STRAWN	3750	167700	103300
YOUNG	MISSISSIPPI	4599	89455	54340
YOUNG	MISSISSIPPIAN	4300	106783	65200
YOUNG	MISSISSIPPIAN	4500	78850	47750
YOUNG	MISSISSIPPIAN	4500	102902	63050
YOUNG	MISSISSIPPIAN	4500	126714	77600
YOUNG	MISSISSIPPIAN	4854	99928	60810
YOUNG	MISSISSIPPIAN	4854	98723	60200
YOUNG	MISSISSIPPIAN	4927	111024	68000
YOUNG	MISSISSIPPIAN	4974	119338	73000
YOUNG	MISSISSIPPIAN	4974	116374	71200
YOUNG	STRAWN	1700	117200	73740
YOUNG	STRAWN	1700	117200	73740
YOUNG	STRAWN	2273	119406	74100
YOUNG	STRAWN	2345	154041	95800
YOUNG	STRAWN	2345	154041	95800
YOUNG	STRAWN	2370	119366	74100
YOUNG	STRAWN	2380	126425	78320
YOUNG	STRAWN	2380	82518	49300
YOUNG	STRAWN	2380	126425	78320
YOUNG	STRAWN	2500	135111	84220
YOUNG	STRAWN	2500	135111	84220
YOUNG	STRAWN	2590	94400	94400
YOUNG	STRAWN	2590	152091	94400
YOUNG	STRAWN	2600	125277	76500
YOUNG	STRAWN	2750	134526	83520
YOUNG	STRAWN	2750	134526	83520
YOUNG	STRAWN	2760	150634	93200
YOUNG	STRAWN	2760	150634	93200
YOUNG	STRAWN	2775	129244	80400
YOUNG	STRAWN	2775	129244	80400

YOUNG	STRAWN	2912	143740	89200
YOUNG	STRAWN	2912	143740	89200
YOUNG	STRAWN	2920	142980	88400
YOUNG	STRAWN	2920	142980	88400
YOUNG	STRAWN	2930	144629	89500
YOUNG	STRAWN	2934	144629	89500
YOUNG	STRAWN	3018	144661	89420
YOUNG	STRAWN	3100	160426	99800
YOUNG	STRAWN	3100	160426	99800
YOUNG	STRAWN	3137	68922	96600
YOUNG	STRAWN	3137	155862	96600
YOUNG	STRAWN	3370	133629	82930
YOUNG	STRAWN	3373	133629	82930
YOUNG	STRAWN	3407	153401	94800
YOUNG	STRAWN	3521	178504	117860
YOUNG	STRAWN	3705	153401	94800
YOUNG	STRAWN	4283	170900	104000
YOUNG	STRAWN SAND	1800	144661	89420
ZAPATA	GLEN SAND	1600	12320	6730
ZAPATA	JACKSON	339	22068	10000
ZAPATA	MIRANDO	1900	16191	8960
ZAPATA	MIRANDO	2000	14360	7500
ZAPATA	MIRANDO	2000	10602	5000
ZAPATA	MIRANDO	2000	10602	4750
ZAPATA	MIRANDO	2000	11798	6750
ZAPATA	MIRANDO	2000	15726	7000
ZAPATA	MIRANDO	2000	10662	6250
ZAPATA	MIRANDO	2000	13254	5750
ZAPATA	MIRANDO	2000	27074	15500
ZAPATA	MIRANDO	2000	14360	7500
ZAPATA	MIRANDO	2000	10602	5000
ZAVALA	INDIO FORM	74	3180	1080

Last Update: 8/19/96

Name: Gary Swindell

Email: petroleum@compuserve.com

Texas Formation Water Chlorides - G

Texas Water Development Board Report 157, 1972.

Full database available from Pecos River Software

Gary S. Swindell & Associates, Dallas, Texas, 214-987-0070

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County	Formation	Depth	Total solids ppm	Cl ppm
GAINES	CLEARFORK	5175	41072	21090
GAINES	CLEARFORK	6060	103785	62000
GAINES	CLEARFORK	6103	120455	71800
GAINES	CLEARFORK	6123	91699	55050
GAINES	CLEARFORK	6165	105752	63600
GAINES	CLEARFORK	6343	40747	20900
GAINES	CLEARFORK	6420	168678	107500
GAINES	CLEARFORK	6455	213606	130700
GAINES	CLEARFORK	6640	38831	23200
GAINES	CLEARFORK	6770	143842	87900
GAINES	CLEARFORK	6900		164800
GAINES	CLEARFORK	6930		15500
GAINES	CLEARFORK	6930		15500
GAINES	CLEARFORK	6930		15500
GAINES	CLEARFORK	7000	52789	30000
GAINES	CLEARFORK	7000	61785	36000
GAINES	CLEARFORK	7100	74195	45600
GAINES	CLEARFORK	7114	102985	60000
GAINES	CLEARFORK	7700	227796	142000
GAINES	CLEARFORK SAND	3220		159600
GAINES	CLEARFORK SAND	6900	19747	8290
GAINES	CLEARFORK SAND	7000	188459	116000
GAINES	CLEARFORK SAND	7000	182840	114000
GAINES	CLEARFORK SAND	7300		159120
GAINES	DEVONIAN	5795	114495	63700
GAINES	DEVONIAN	10500	41383	21231
GAINES	DEVONIAN	10919	50210	28400
GAINES	DEVONIAN	11025	36430	21077
GAINES	DEVONIAN	11070	35589	20385
GAINES	DEVONIAN	11070	38723	22534
GAINES	DEVONIAN	11125		29200

GAINES	DEVONIAN	11125 36770	20168
GAINES	DEVONIAN	11125 37644	20567
GAINES	DEVONIAN	11125 36424	19917
GAINES	DEVONIAN	11125	20000
GAINES	DEVONIAN	11125 72505	41575
GAINES	DEVONIAN	11200 45832	25629
GAINES	DEVONIAN	11502	52000
GAINES	DEVONIAN	12300	100
GAINES	DEVONIAN	12400 25497	13600
GAINES	DEVONIAN	12500 31936	17200
GAINES	DEVONIAN	12608	18500
GAINES	DEVONIAN	12628 34709	19000
GAINES	DEVONIAN	12735	142780
GAINES	DEVONIAN	12735	138294
GAINES	DEVONIAN DOLOMITE	11150 38322	22420
GAINES	DOLOMITE	5994 23208	7180
GAINES	ELLENBURGER	12390 78065	47300
GAINES	GLORIETA	6100 170540	107500
GAINES	GLORIETA	6100 183058	114040
GAINES	GLORIETA	6115 98735	59100
GAINES	LEONARD	8742 22492	12000
GAINES	LOWER CLEARFORK	7056 162269	98600
GAINES	LOWER CLEARFORK	7072 71254	41000
GAINES	LOWER CLEARFORK	7288 162038	99000
GAINES	LOWER CLEARFORK	7432 129990	79100
GAINES	OGALLALA FORM	60 2490	615
GAINES	PENNSYLVANIAN	8900 53581	29500
GAINES	SAN ANDRES	4698 96299	57400
GAINES	SAN ANDRES	4725 101260	61000
GAINES	SAN ANDRES	4800 60677	32000
GAINES	SAN ANDRES	4800 71526	42000
GAINES	SAN ANDRES	4840 69920	39600
GAINES	SAN ANDRES	4841 60870	31600
GAINES	SAN ANDRES	4859 204279	124000
GAINES	SAN ANDRES	4900 69000	32600
GAINES	SAN ANDRES	4900 72300	34100
GAINES	SAN ANDRES	4900 50459	26900
GAINES	SAN ANDRES	4900 68100	31200
GAINES	SAN ANDRES	4900 191000	106000
GAINES	SAN ANDRES	4900 167268	99500
GAINES	SAN ANDRES	4900 52182	26700

GAINES	SAN ANDRES	4900	78287	39003
GAINES	SAN ANDRES	4900		120000
GAINES	SAN ANDRES	4964		30000
GAINES	SAN ANDRES	5032	82016	55065
GAINES	SAN ANDRES	5032	41383	21231
GAINES	SAN ANDRES	5032	217315	119700
GAINES	SAN ANDRES	5032	23181	13487
GAINES	SAN ANDRES	5032	56970	31200
GAINES	SAN ANDRES	5032	40666	26300
GAINES	SAN ANDRES	5032	44152	27380
GAINES	SAN ANDRES	5037	39310	26100
GAINES	SAN ANDRES	5060	41214	21200
GAINES	SAN ANDRES	5100	44330	25100
GAINES	SAN ANDRES	5100	27354	14000
GAINES	SAN ANDRES	5100	103140	65600
GAINES	SAN ANDRES	5100	44309	23040
GAINES	SAN ANDRES	5175	30240	13690
GAINES	SAN ANDRES	5200	64280	38300
GAINES	SAN ANDRES	5200	64280	38300
GAINES	SAN ANDRES	5200	29635	15650
GAINES	SAN ANDRES	5200	251553	158200
GAINES	SAN ANDRES	5200	31760	18500
GAINES	SAN ANDRES	5200	29635	15650
GAINES	SAN ANDRES	5225	48317	24400
GAINES	SAN ANDRES	5300	55553	34400
GAINES	SAN ANDRES	5375	39742	21730
GAINES	SAN ANDRES	8816	79605	48400
GAINES	SAN ANGELO	5032	61953	36900
GAINES	SAN ANGELO	5957	46498	23900
GAINES	SAN ANGELO	6370	25614	11460
GAINES	SAN ANGELO	6536	60794	38400
GAINES	STRAWN	10410		52000
GAINES	UPPER CLEARFORK	6600	152749	94100
GAINES	UPPER CLEARFORK	6900		110200
GAINES	UPPER CLEARFORK	7045	17669	7000
GAINES	UPPER CLEARFORK	7100	118530	70250
GAINES	UPPER CLEARFORK	7100	132945	81200
GAINES	WASSON 6600	6630		83600
GAINES	WOLFCAMP	9103		9150
GAINES	WOLFCAMP	9120	82016	55065
GAINES	WOLFCAMP REEF	10349	201270	114700

GALVESTON ALTA LOMA SAND	884	1660	820
GALVESTON ALTA LOMA SAND	1000	1780	875
GALVESTON ALTA LOMA SAND	1317	5870	3400
GALVESTON BEAUMONT CLAY	100	1070	351
GALVESTON BEAUMONT CLAY	279	2430	1160
GALVESTON FB I	7064	113917	70288
GALVESTON FB I	7064	139901	86234
GALVESTON FB I	7064	139901	86234
GALVESTON FB I10X	7592	109990	68036
GALVESTON FB I5W	6456	114528	70457
GALVESTON FB I7	6990	108509	66835
GALVESTON FB I9A	7290	121048	75005
GALVESTON FB II	6000	157323	97514
GALVESTON FB II	6500	134845	84084
GALVESTON FB II	7172	114877	70784
GALVESTON FB II5A	6806	115289	71222
GALVESTON FB II9A	7474	158418	98774
GALVESTON FB III	4500	118366	72513
GALVESTON FB III	4500	109524	66993
GALVESTON FB III1B	4129	108368	66974
GALVESTON FB III2A2	5222	95479	58840
GALVESTON FB III-A	4560	112873	69280
GALVESTON FB V9	7309	130207	80103
GALVESTON FB VIIW	3939	106370	65623
GALVESTON FB VII	4834	114823	70261
GALVESTON FRIO	8031	79042	48100
GALVESTON FRIO	8048	96668	58750
GALVESTON FRIO	8095	67897	41000
GALVESTON FRIO	8464	54187	32300
GALVESTON FRIO	8570	44617	26700
GALVESTON FRIO	9078	54548	32750
GALVESTON FRIO	9117	102114	61921
GALVESTON FRIO	9258	110361	67012
GALVESTON FRIO	9314	45495	26684
GALVESTON FRIO	10364	62367	37223
GALVESTON FRIO GAS	7970	149080	92400
GALVESTON LISSIE FORM	1221	2020	1060
GALVESTON WAY SAND	7900	118185	72000
GARZA ELLENBURGER	8400	57700	30100
GARZA GLORIETA	2400	47271	25200
GARZA GLORIETA	2456	33778	17875

GARZA	GLORIETA	2480	61715	33550
GARZA	GLORIETA	2480	57658	31400
GARZA	GLORIETA	2480	37463	18800
GARZA	GLORIETA	2520	68300	34100
GARZA	GLORIETA	2650	76000	39000
GARZA	GLORIETA	2700	69338	40000
GARZA	GLORIETA	2700	60377	34400
GARZA	GLORIETA	2700	58400	33200
GARZA	GLORIETA	3000	216770	84100
GARZA	GLORIETA	3082	120250	72150
GARZA	GLORIETA	3605	237140	103500
GARZA	GLORIETA	3605	234540	89000
GARZA	GLORIETA	3966	168725	102000
GARZA	GLORIETA	3966		115000
GARZA	GLORIETA	3966	151089	92200
GARZA	PENN	7960	111448	67240
GARZA	PENN	7979	113035	68400
GARZA	PENN	8098	95625	57720
GARZA	SAN ANDRES	1875	67010	36600
GARZA	SAN ANDRES	1926	166350	100000
GARZA	SAN ANDRES	1926	146430	65400
GARZA	SAN ANDRES	1926	156950	76000
GARZA	SAN ANDRES	1926	145410	65500
GARZA	SAN ANDRES	2556	85400	50000
GARZA	SAN ANDRES	2700	91000	54600
GARZA	SAN ANDRES	2900	119000	70800
GARZA	SAN ANDRES	3015	135125	80550
GARZA	SAN ANDRES	3097	135594	82000
GARZA	SAN ANDRES	3138	127609	79778
GARZA	SAN ANDRES	3138	181612	109000
GARZA	SAN ANDRES	3138	129883	80000
GARZA	SAN ANDRES	3150	136438	81000
GARZA	SAN ANGELO	1926	60223	32500
GARZA	SAN ANGELO	2456	67477	37650
GARZA	SAN ANGELO	2467	58653	32000
GARZA	SAN ANGELO	2520	68775	39200
GARZA	SPRABERRY	5070	159931	97550
GARZA	STRAWN	7400	84329	50180
GARZA	STRAWN	7751	84232	50900
GARZA	STRAWN	8060	123100	70500
GARZA	STRAWN	8150	140700	76700

GOLIAD	PETTUS	4100	14623	8227
GOLIAD	SLICK SAND	7557	24862	14787
GOLIAD	SLICK SAND	7571	5620	1770
GOLIAD	SLICK SAND	7571	28500	15600
GRAY	BROWN DOLOMITE	2685	259000	125820
GRAY	BROWN DOLOMITE	3000		156200
GRAY	BROWN DOLOMITE	3000		107000
GRAY	BROWN DOLOMITE	3000		100150
GRAY	DOLOMITE	2317	138896	83086
GRAY	DOLOMITE	3000	204945	140000
GRAY	DOLOMITE	3333	200701	124000
GRAY	GRANITE WASH	3000	158100	94500
GRAY	GRANITE WASH	3000	219760	135812
GRAY	OGALLALA FORM	450	1120	312
GRAY	WOLFCAMP	2800		54750
GRAY	WOLFCAMP DOLOMITE	2800	292000	114000
GRAY	WOLFCAMP DOLOMITE	2800	29291	15000
GRAY	WOLFCAMP DOLOMITE	2800		95000
GRAYSON	4800 STRAWN	4788	244712	151940
GRAYSON	5360 SAND	5364	248139	154070
GRAYSON	GLEN ROSE LS	345	1750	60
GRAYSON	OIL CREEK	7156	167672	141696
GRAYSON	PENNSYLVANIAN	8900	188564	117018
GRAYSON	RIVERSIDE SAND	5008	236743	147680
GRAYSON	S SANDSTONE	5811	236600	139000
GRAYSON	SAND	7500	202215	125706
GRAYSON	STRAWN	3617	222424	138600
GRAYSON	STRAWN	3617	228140	141950
GRAYSON	WOODBINE SAND	1155	3380	472
GREGG	WILCOX GROUP	290	1520	750
GREGG	WILCOX GROUP	780	1600	630
GREGG	WILCOX GROUP	875	1780	740
GREGG	WILCOX GROUP	906	1830	780
GREGG	WOODBINE	3115	61300	37060
GREGG	WOODBINE	3700	64268	38470
GREGG	WOODBINE	3700	61757	37080
GREGG	WOODBINE	3700	60255	36120
GREGG	WOODBINE	3757	60378	37165
GUADALUPE	EDWARDS LS	2350	1000	1000

Last Update: 8/19/96

Name: Gary Swindell

Supplemental Information for Section VII –Geology

SUPPLEMENTAL INFORMATION FOR SECTION VII

General well control data were obtained from a combination of sources including Tobin Map Services, NMOCD, NMBM, and DEFS. Three general site maps show well control by discrete depth intervals (Figure 1). This figure shows clearly the predominance of shallow wells in the area. The clear NE-SW trend expressed in deeper wells (over 7500') indicates the trend of Abo production in the area. This is the deepest productive zone in the area.

Due to the position of the study area relative to the overall paleogeography of this portion of the Permian Basin, including the Central Basin Platform, the Delaware Basin and the San Simon Channel, the control with these deeper wells is skewed west of Linam (and the proposed injection well location), and most all of them TD in the lower Abo or underlying Wolfcamp. Figure 1 shows the clear NE trend of these deeper wells. These wells parallel the NE trend of the steep rise of the Central Basin Platform and contain the greatest thickness of Abo "Reef". The well locations are also influenced by block faulted or draped structures that may cut the underlying Penn/Wolfcamp units. Due, in part, to the secondary porosity and permeability associated with the depositional accumulation of the clastic carbonates and dolomites along this trend, these areas beneath production are generally zones most conducive to acid gas injection (AGI). Figure 2 shows the generalized geologic setting, stratigraphic relationships, structure, and paleogeography of the study area.

Figure 3 is an isopach map of the Lower Bone Spring (LBS) (which most operators call the Wolfcamp) around Linam and the location of the proposed injection well in Section 30-18S-37E. The net thickness is shown next to each well. This does not imply, however, that the entire zone is porous or permeable enough to support injection. The well in section 10-19S-36E, whose 108 feet of section is almost uniformly porous (15-17% dolomite cross-plot porosity) shows the upper end of porosity range in the LBS. Porosity is more generally lower in the wells where the zone is present; however, three other wells tested good permeability and all recovered sulfur water. A cross section through these wells along line LBS1-LBS1' is included as Figure 4.

The LBS is the basin-margin equivalent to the lower part of the Abo reef, which is the producing zone that trends north-to-south west of proposed injection well. It is a fore-shelf detrital, dolomitized carbonate that is widespread along the margin of the Central Basin Platform. This unit is fairly continuous along the shelf margin, down depositional dip to the equivalent Abo beds (see Figure 2). The Abo on the immediately-adjacent shelf produces from higher up in the section, equivalent to the 3rd Bone Spring sand horizon in the adjacent basin, so the lower Bone Spring is below any local producing zone (Figure 4).

Figure 3 shows a number of down-to-basin faults inferred by correlations of all the deep wells on the map. Some structure maps on the Devonian do not plot these inferred faults, but rather infer a steep platform edge that may contain drape structures which mask faulting. The actual positions of these steep faults are not exactly known, so the faults are

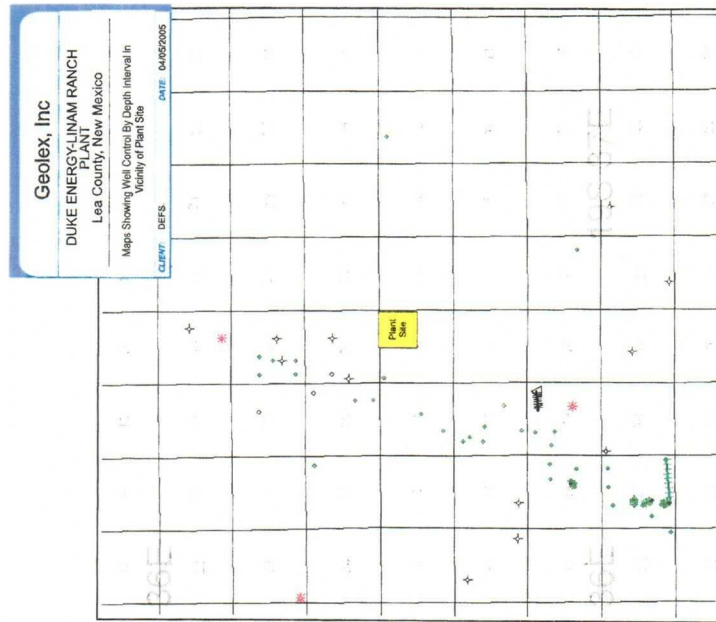
shown in relative positions between wells. Faults generally step down both to the west, towards the Delaware basin, and to the north, into the San Simon channel.

The closest well to proposed injection well on this cross section is located in section 31 just to the north. It shows several discrete porosity zones on a sonic log, and a drill stem test across the top part of the LBS zone recovered almost 7400 feet of sulfur water, with shut-in pressures of 3423 lbs. and flowing pressure matching the shut-in pressure. This is encouraging in that it is indicative of a productive reservoir capable of taking acid gas. The well in section 35-18S-36E also tested wet, with flowing pressures up 2674 lbs., but primary porosity averaging about 7%. The well further to the west in section 27, averages about 5-6% primary porosity, recovered large amounts of water on a DST, and had good flowing pressures. The well in section 10 has the best porosity from the logs; however, no drill stem test data was available for this location. In all cases, we would anticipate a good likelihood that the zones would be fractured; however, fracture porosity is not often well expressed on logs, especially on density-neutron logs.

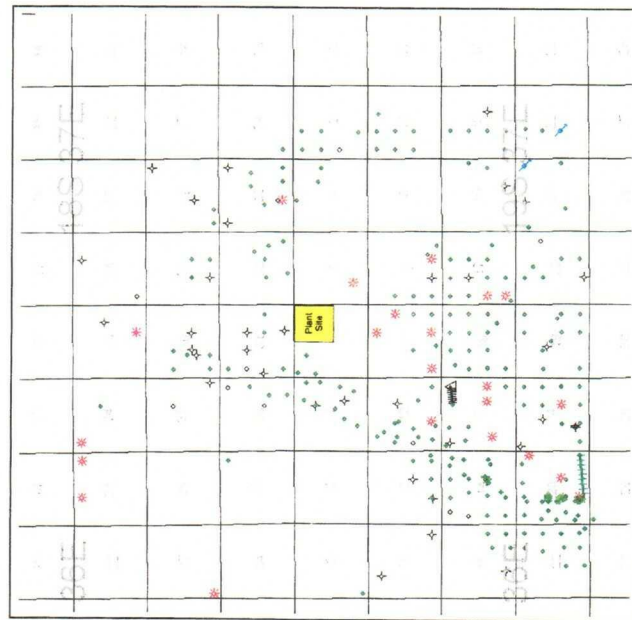
In an evaluation of the overall section for other additional targets, the shallower Brushy Canyon Sandstones were evaluated. These zones have been used for salt water disposal in the area (T18S, R37E, Sec. 31, NW ¼) and have been evaluated as a secondary AGI target. The extent of porosity in the Brushy Canyon is shown on Figure 5. Furthermore, the structural cross section (BC1-BC1') showing the zones with injection potential in the Brushy Basin Sandstone is shown in Figure 6. This section shows the injection potential of the zone in the vicinity of the recommended LBS area confirmed by the prior use of the Goodwin #1 and the State WME #2 as salt water injection wells. Geolex obtained limited data on the effectiveness of these wells based on the salt water disposal history. These wells clearly demonstrate the capacity of these units to receive substantial injection volumes (Appendix A).

The Brushy Canyon-Abo production trends and the shelf edge are shown on Figure 7, which contains a line of section (UP1-UP1') that shows the structural and stratigraphic effect of the down faulting west of Linam on the units from the Seven Rivers to the Bone Spring. Pronounced thickening of the stratigraphic units is visible in the western portion of the section (Figure 8). This is also shown diagrammatically in Figure 2 as the stratigraphic units change with the transition from the shelf to basinal rocks, including the AGI targets.

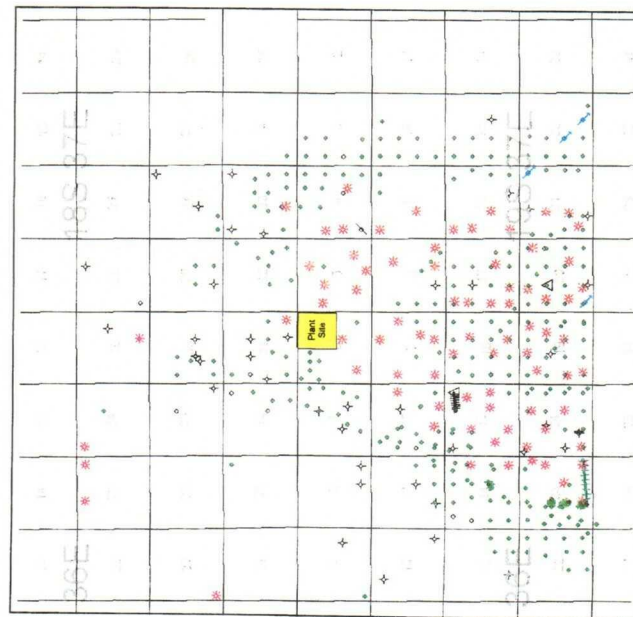
Based on the overall geologic analysis, the synthesis of the prime "fairway" trends for both of the potential AGI targets (LBS and BC) and all lines of section are shown on Figure 9. This figure outlines the recommended area in Section 30, T18S, R37E.



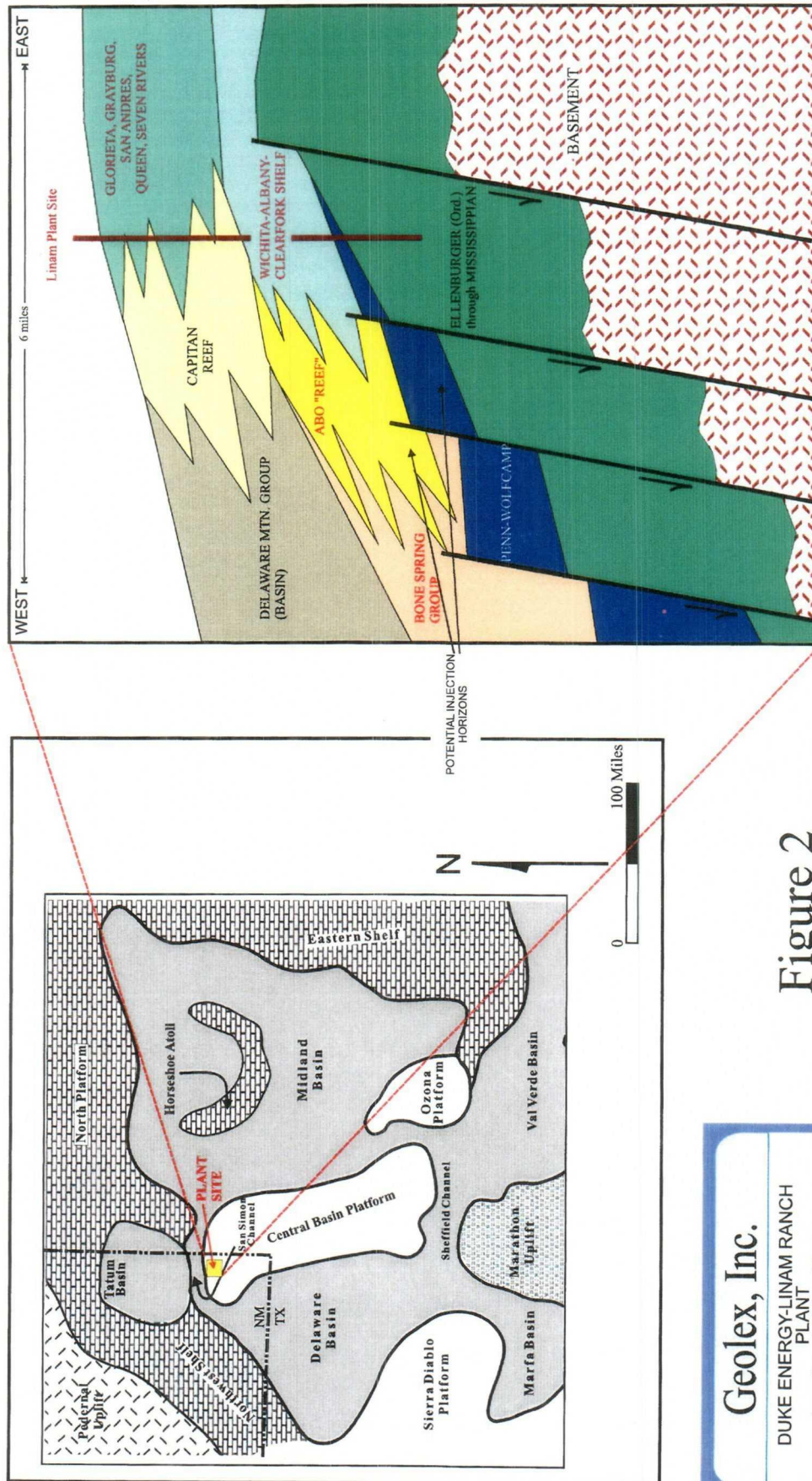
WELLS DEEPER THAN 7500 FT. (Abo)



WELLS DEEPER THAN 4000 FT. (Queen)



ALL WELL CONTROL



Local hydrocarbon pay zones indicated in red

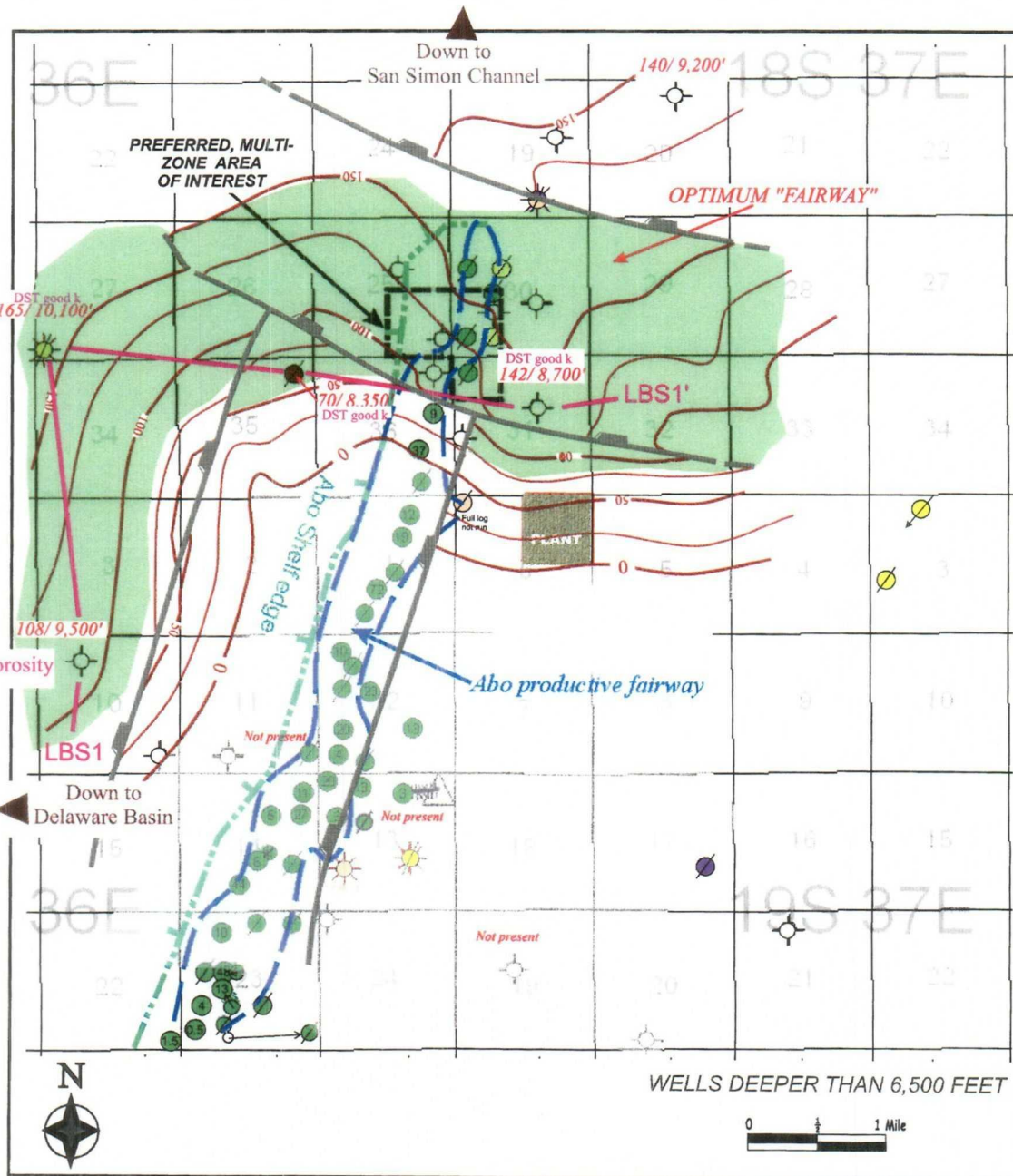
Figure 2

Geolex, Inc.

DUKE ENERGY-LINAM RANCH
PLANT
Lea County, New Mexico

Regional Setting of Linam Plant and General
Stratigraphy of the Northwest Side of the
Central Basin Platform

CLIENT: DEFS DATE: 05/03/2005



Producing Zones:

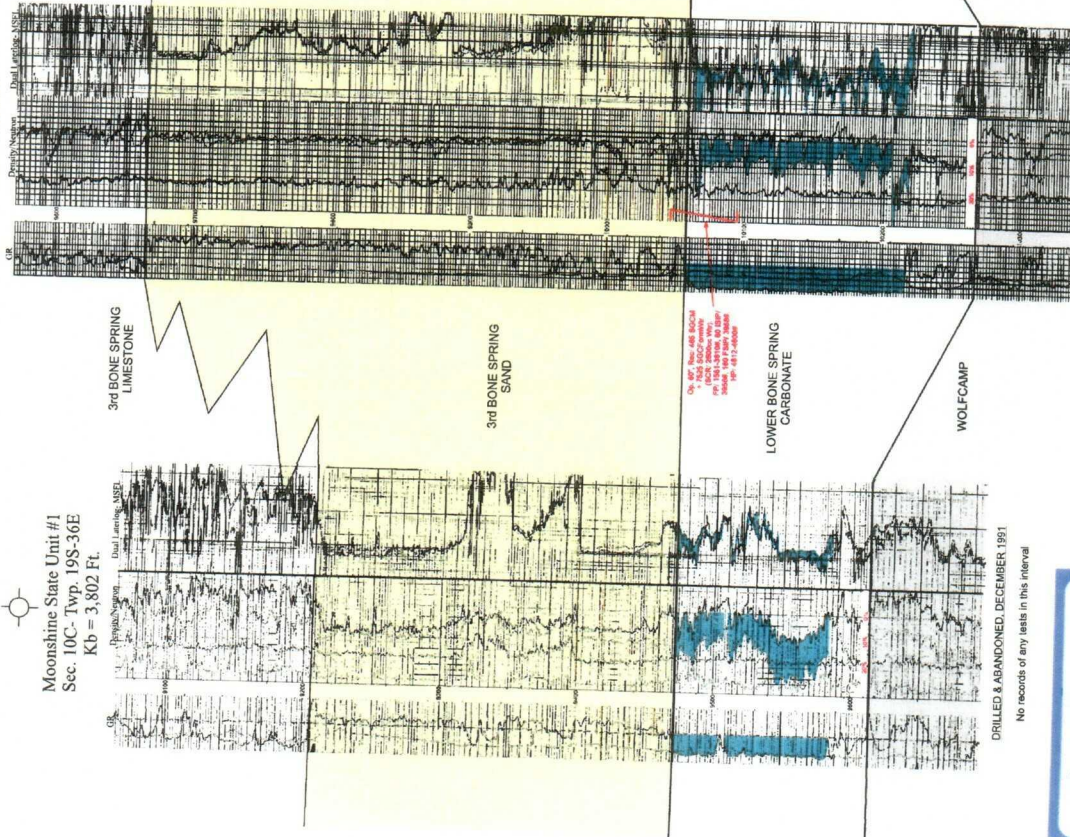
- Queen
- San Andres- Grayburg
- Upper Bone Spring
- Drinkard
- Abo, with current daily production (BOPD)

Figure 3

LBS1



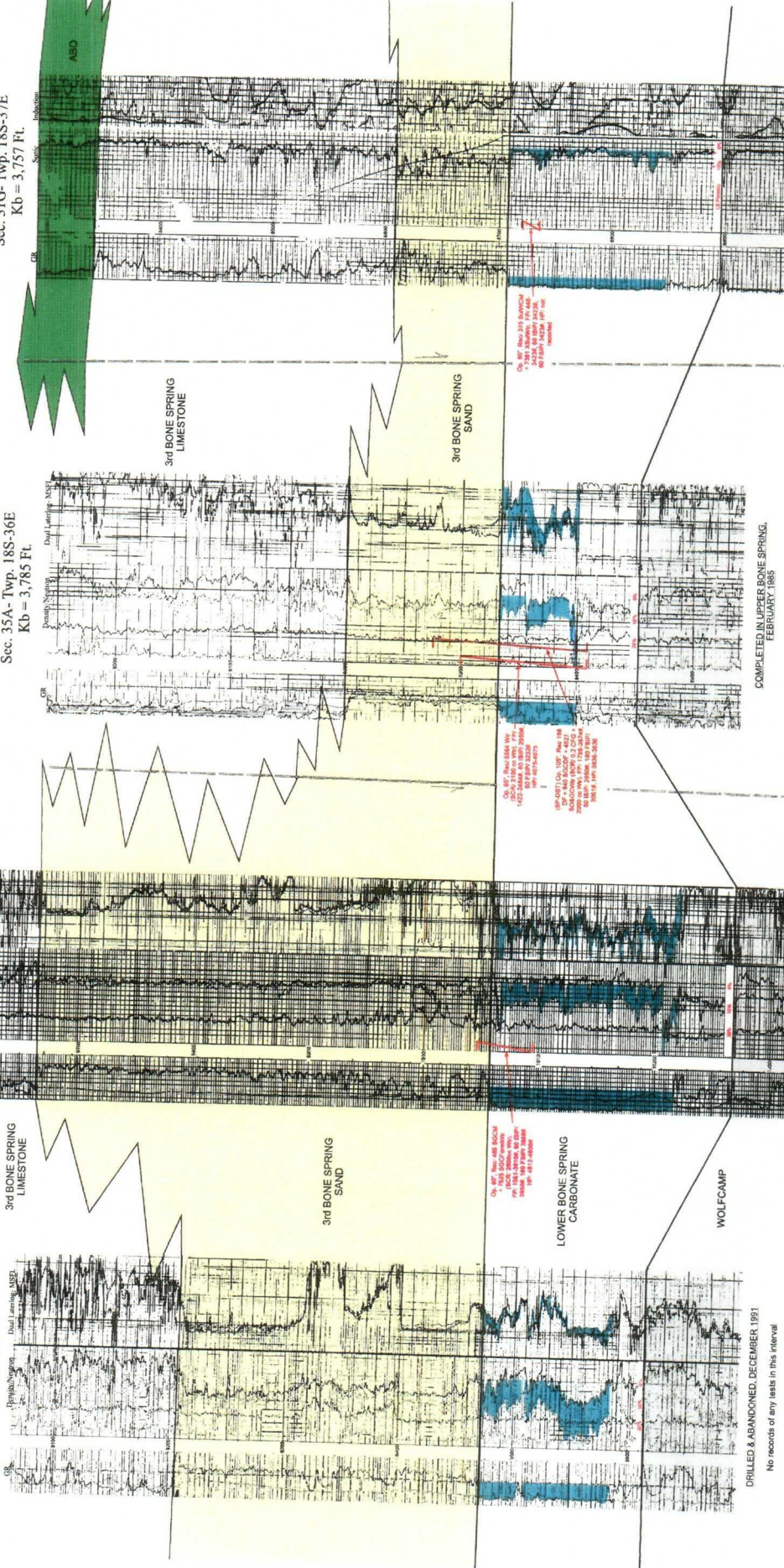
Moonshine State Unit #1
Sec. 27M - Twp. 18S-36E
Kb - 3,814 Ft.



LBS1'



Moonshine State Unit #1
Sec. 10C - Twp. 19S-36E
Kb - 3,802 Ft.



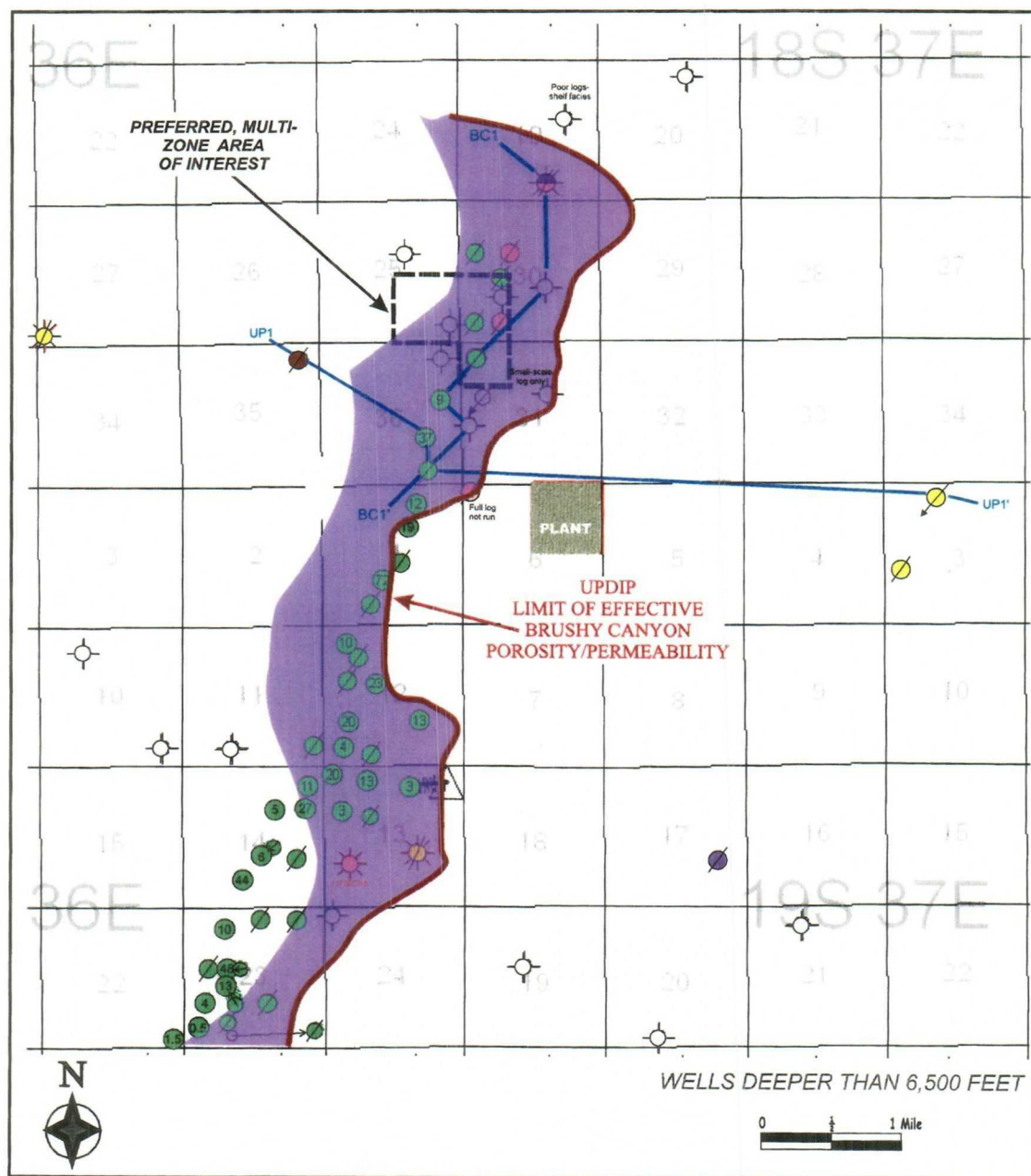
Lea "ACF" State #1
Sec. 35A - Twp. 18S-36E
Kb - 3,785 Ft.

Slate B-31 (Conoco State #1)
Sec. 31G - Twp. 18S-37E
Kb - 3,757 Ft.

Geolex, Inc.
DUKE ENERGY-LINAM RANCH
PLANT
Lea County, New Mexico
Stratigraphic Cross-Section Showing Porosity-
Resistivity, Thickness, and Bone Spring
Carbonate Zone (LBS1-LBS1')

DATE: 05/02/2005
CLIENT: DEFS

Figure 4



Producing Zones:

- Queen
- San Andres- Grayburg
- Upper Bone Spring
- Drinkard
- Abo, with current daily production (BOPD)

Geolex, Inc.

DUKE ENERGY-LINAM RANCH
PLANT
Lea County, New Mexico

Map Showing Brushy Canyon Trend

CLIENT: DEFS

DATE: 05/04/2005

Figure 5

BC1' (South)

Monument State #1
Sec. 36P- Twp. 18S-36E
Kb = 3,752 Ft.

Goodwin State #1
Sec. 31L- Twp. 18S-37E
Kb = 3,746 Ft.

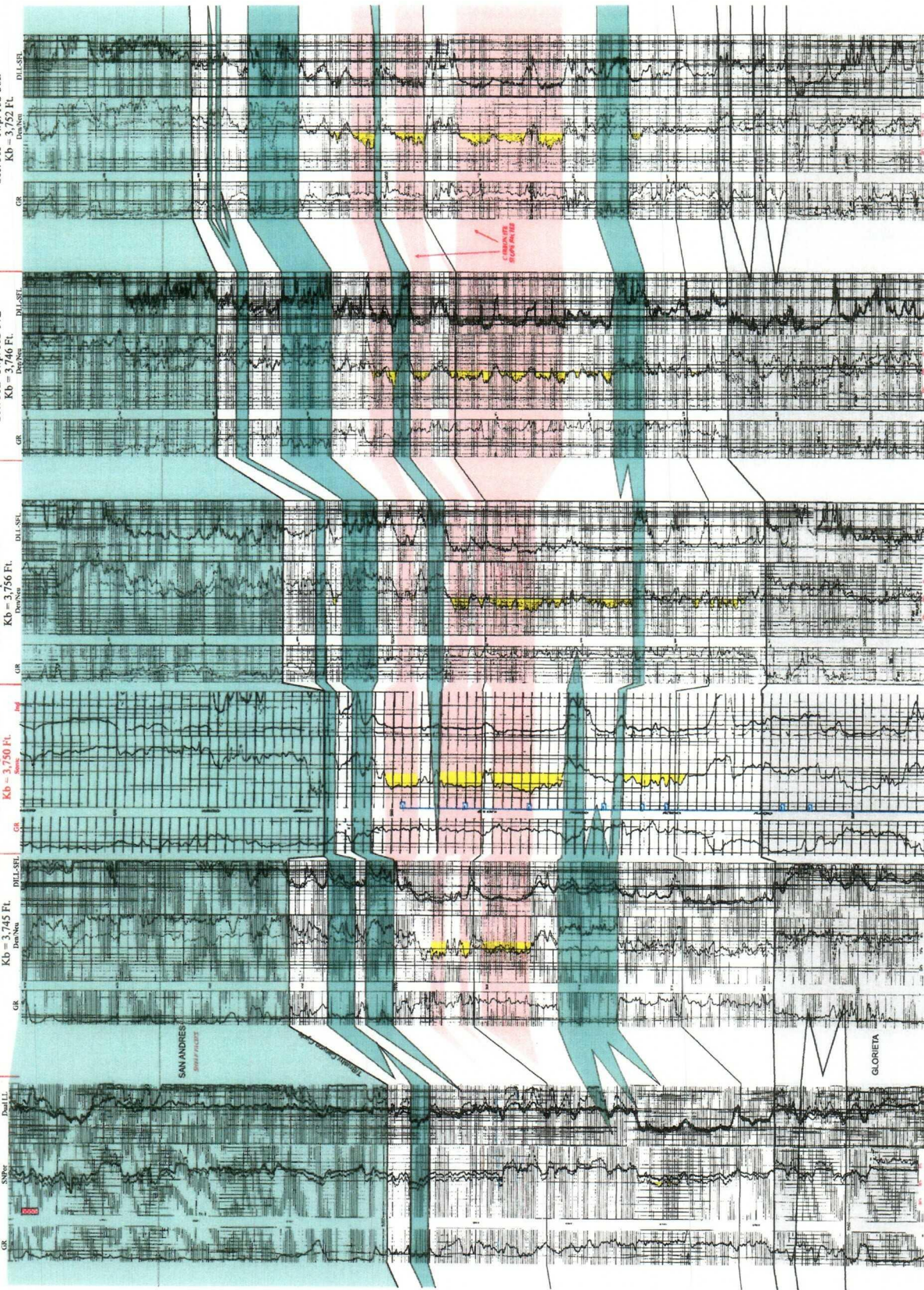
Monument State #3
Sec. 36H- Twp. 18S-36E
Kb = 3,756 Ft.

State WME #2
Sec. 31D- Twp. 18S-37E
Kb = 3,750 Ft.

State 30 #1
Sec. 30L- Twp. 18S-37E
Kb = 3,745 Ft.

State B-19 #1
Sec. 19O- Twp. 18S-37E
Kb = 3,760 Ft.

BC1 (North)



COMPLETED IN AUG. APRIL 1999
No tests reported in interval shown
Last date of post-union: November 2002

COMPLETION ATTEMPTED IN 1960
DECEMBER 1959
WELL ABANDONED JULY 2000
No tests reported in interval shown

COMPLETED IN AUG. SEPTEMBER 1999
No tests reported in interval shown

CONVERTED TO BROW. JANUARY 1983
Performance Summary through 1983
Plugged in March 1981

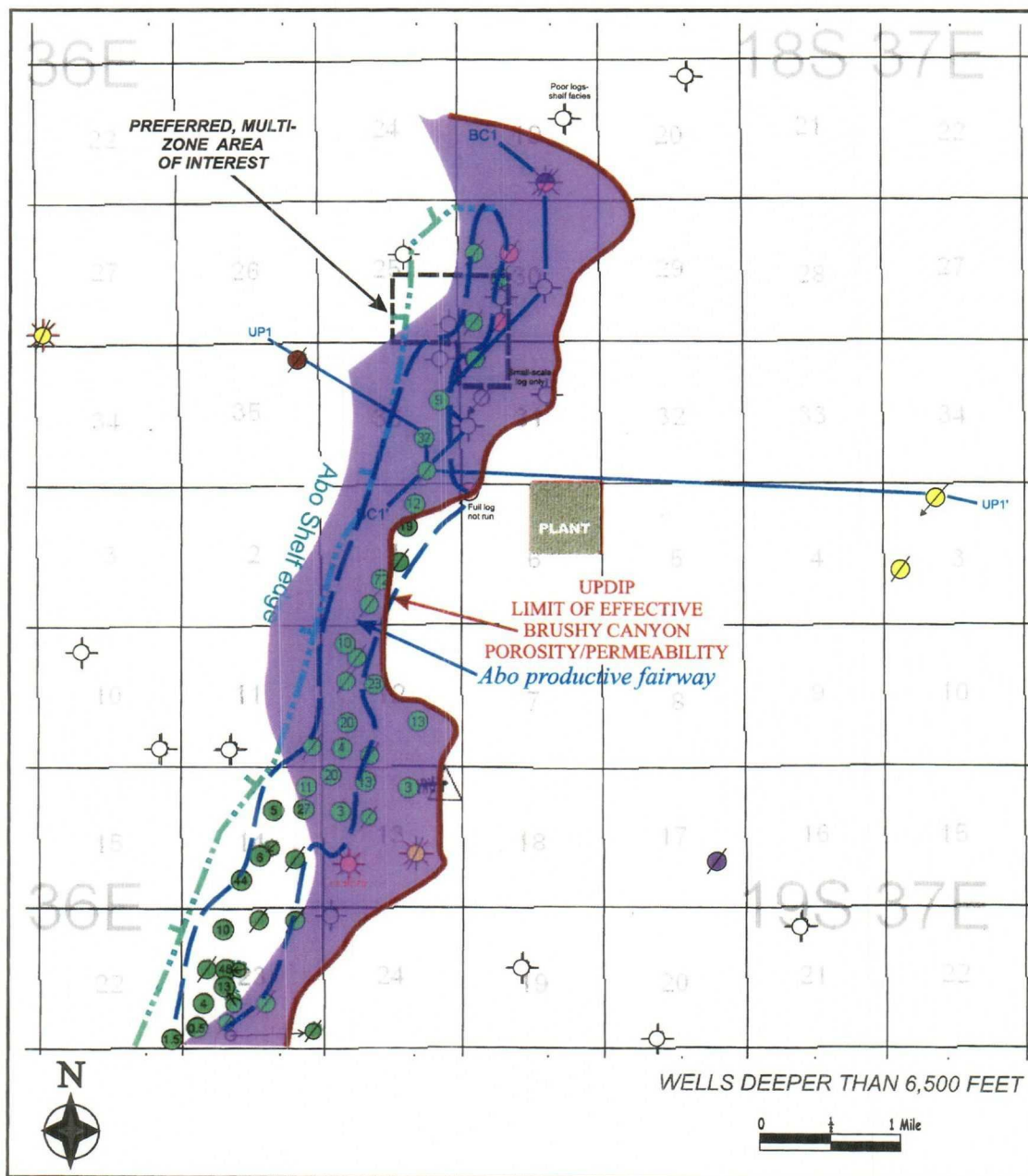
DRIILLED & ABANDONED APRIL 1970
No tests this interval

ORIGINALLY COMPLETED IN SAN ANDRES, AS SHOWN.
OCTOBER 1974
IP TO 80' x 20 BWPL. SH-1 in

COMPLETED IN DISMANTLED, NOVEMBER 1974
No tests reported in interval shown

Golder, Inc.
DUKE ENERGY-LINAM RANCH
LINAM RANCH
Leas County, New Mexico
Structure Cross-Section Showing Porosity
Massing through the Brachiopod
Member of the Permian System

Figure 6



Producing Zones:

- Queen
- San Andres-Grayburg
- Upper Bone Spring
- Drinkard
- Abo, with current daily production (BOPD)

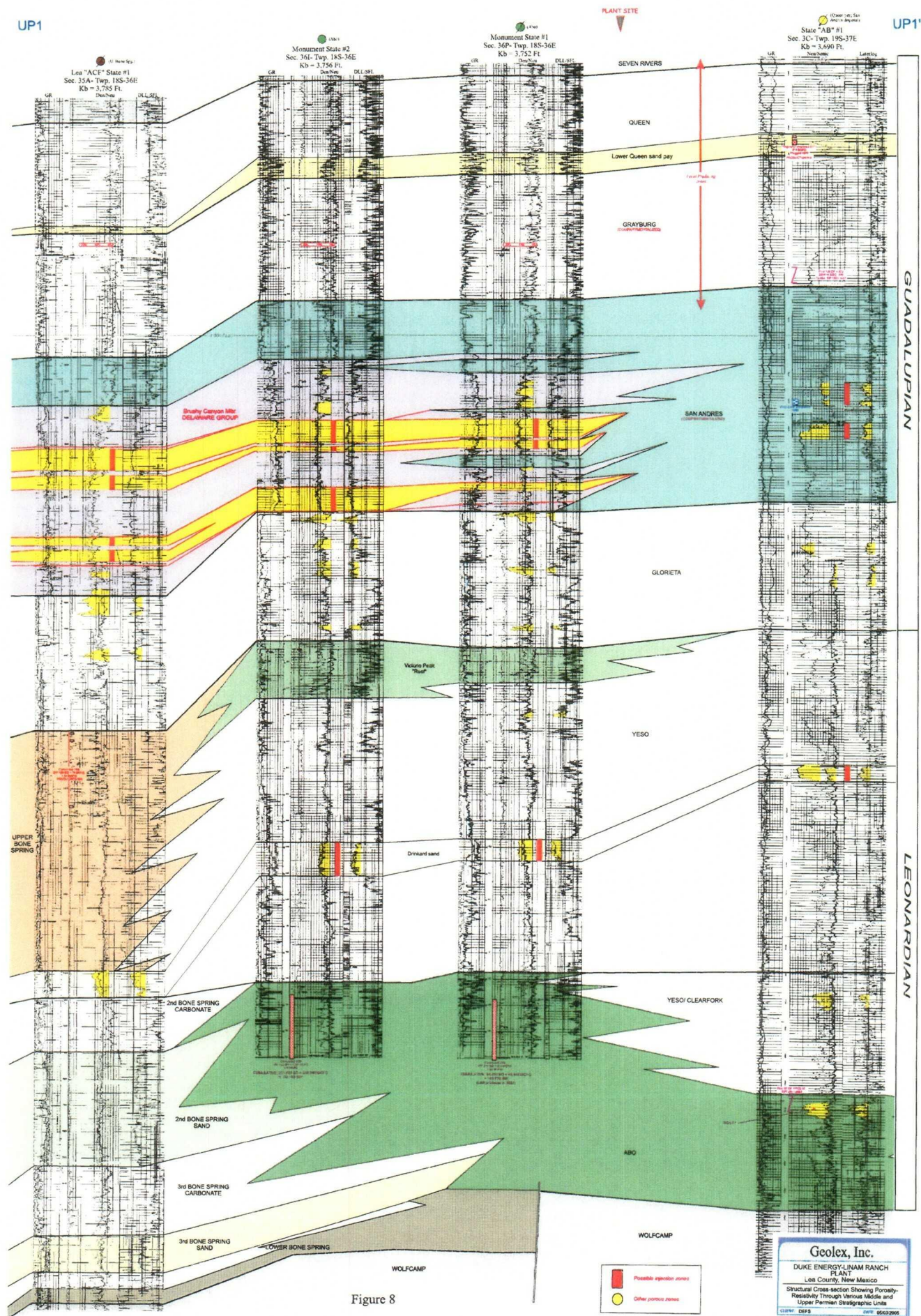
Figure 7

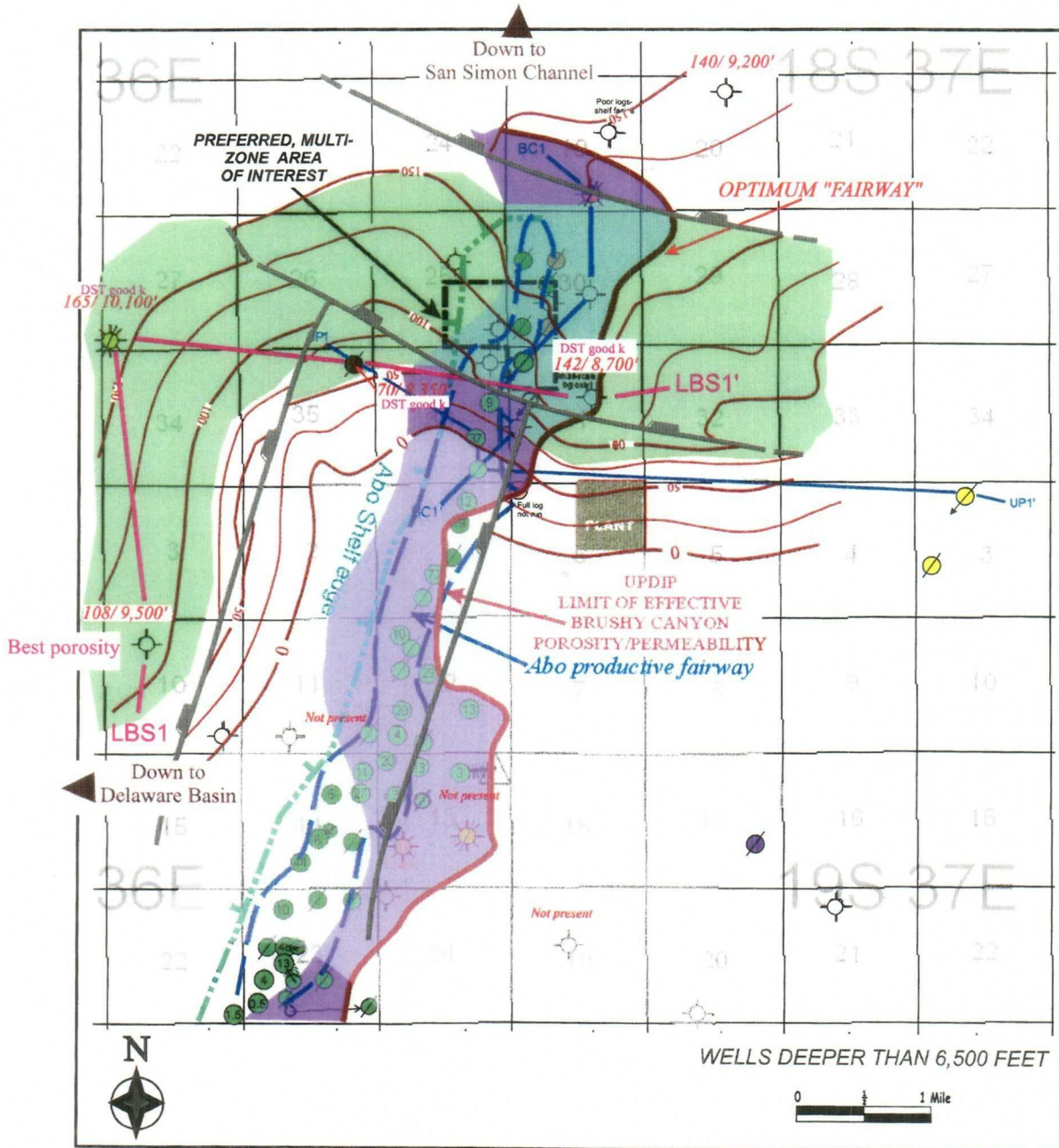
Geolex, Inc.

DUKE ENERGY-LINAM RANCH
PLANT
Lea County, New Mexico

Map Showing Brushy Canyon
and Abo Trends

CLIENT: DEFS DATE: 05/04/2005





Producing Zones:

- Queen
- San Andres- Grayburg
- Upper Bone Spring
- Drinkard
- Abo, with current daily production (BOPD)

Geolex, Inc.

DUKE ENERGY-LINAM RANCH
PLANT
Lea County, New Mexico

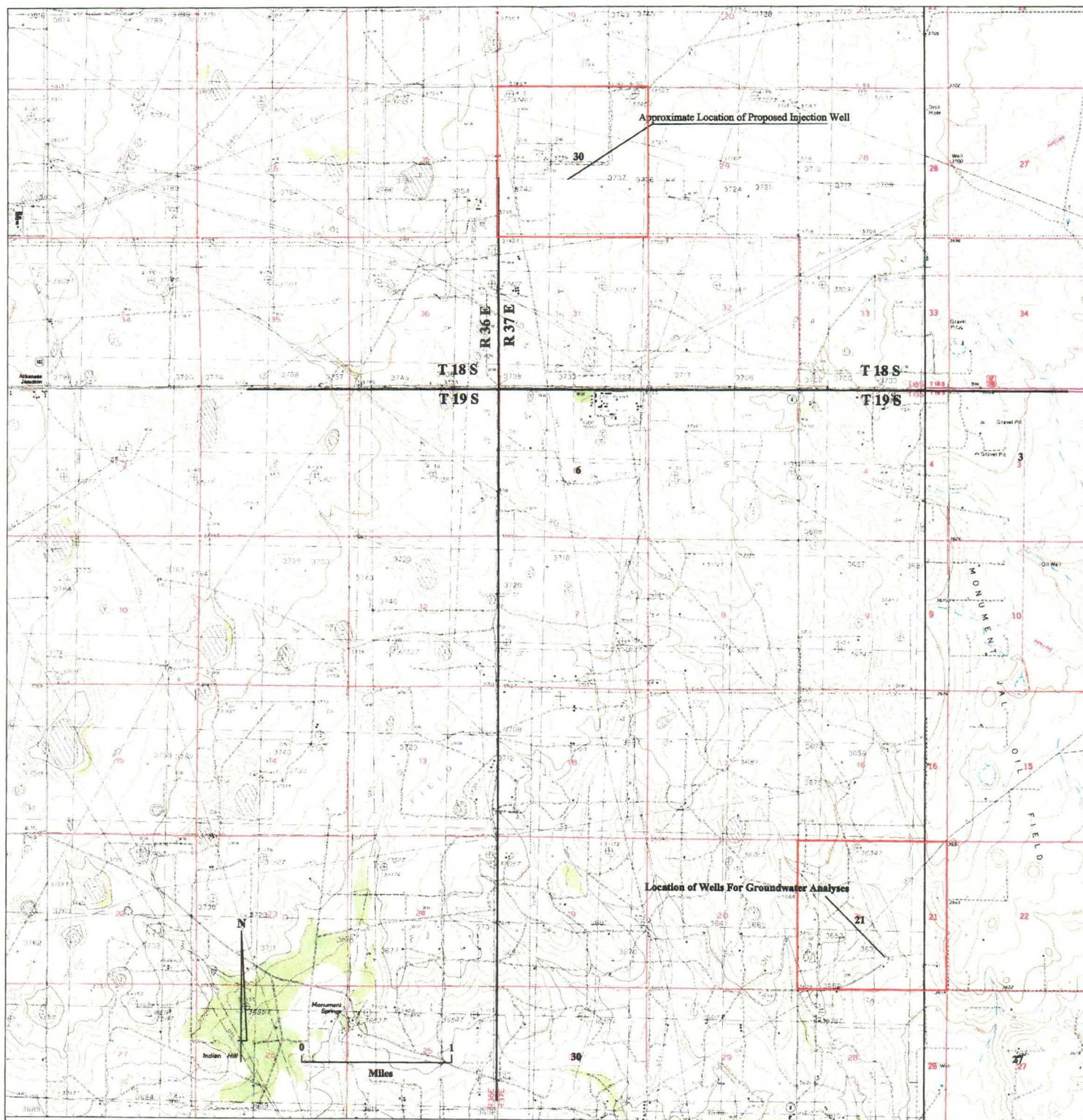
Map Showing Lower Bone Spring
Brushy Canyon and Abo Trends

CLIENT: DEFS

DATE: 05/04/2005

Figure 9

Supplemental Map for Section XI



Supplemental Map 1 for C-108 Section XI
Showing the Locations of Groundwater Wells In Section 21, 19S, 37E

Supplemental Data for Section XI

Supplemental Data for Section XI: Analyses of Groundwater from Wells in Section 21, T19S, R37E												
Well	Date	Ca	Mg	K	Na	Alk	Cl	SO4	Ba	Fe	Mn	TDS
North water well	12/18/2002	122	23.1	94.4	7.96	161	1115	72.8	0.41	20	0.0221	1617
South water well	12/18/2002	175	25.2	6.84	88.6	229	88.6	104	0.067	0.038	<0.001	717
House well	12/18/2002	161	26.4	6.42	70.4	261	106	31.2	1.35	0.513	0.089	664
West water well	2/26/2003	102	16.4	4.42	56.1	186	137	84.6	0.114	0.104	0.002	587

7002 1000 0005 2953 0150

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only. No Insurance Coverage Provided)

HOUSTON, TX 77210

Postage	4.90	UNIT ID: 0129
Certified Fee	2.30	
Return Receipt Fee (Endorsement Required)	1.75	
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees		8.95

Clerk: KN2F45
09/12/05

Sent To: Chevron USA
 Street, Apt. No., or PO Box No. PO Box 4791
 City, State, ZIP+4 Houston TX 77210

7002 1000 0005 2953 0161

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only. No Insurance Coverage Provided)

HOUSTON, TX 77252

Postage	4.90	UNIT ID: 0129
Certified Fee	2.30	
Return Receipt Fee (Endorsement Required)	1.75	
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees		8.95

Clerk: KN2F45
09/12/05

Sent To: Conoco Phillips Co.
 Street, Apt. No., or PO Box No. PO Box 2197
 City, State, ZIP+4 Houston TX 77252

7002 1000 0005 2953 0198

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only. No Insurance Coverage Provided)

HOUSTON, TX 77252

Postage	4.90	UNIT ID: 0129
Certified Fee	2.30	
Return Receipt Fee (Endorsement Required)	1.75	
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees		8.95

Clerk: KN2F45
09/12/05

Sent To: Marathon Oil
 Street, Apt. No., or PO Box No. PO Box 2069
 City, State, ZIP+4 Houston TX 77252

7002 1000 0005 2953 0211

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only. No Insurance Coverage Provided)

MIDLAND, TX 79705

Postage	4.55	UNIT ID: 0129
Certified Fee	2.30	
Return Receipt Fee (Endorsement Required)	1.75	
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees		8.60

Clerk: KN2F45
09/12/05

Sent To: Southwest Royalties Inc.
 Street, Apt. No., or PO Box No. 6 Deste Drive #2100
 City, State, ZIP+4 Midland TX 79705

7002 1000 0005 2953 0204

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only. No Insurance Coverage Provided)

HOUSTON, TX 77252

Postage	4.90	UNIT ID: 0129
Certified Fee	2.30	
Return Receipt Fee (Endorsement Required)	1.75	
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees		8.95

Clerk: KN2F45
09/12/05

Sent To: Amenada Hess Corp
 Street, Apt. No., or PO Box No. PO Box 2040
 City, State, ZIP+4 Houston TX 77252

September 10, 2005

Southwest Royalties, Inc.
6 Desta Drive #2100
Midland TX 79705

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

RE: ADMINISTRATIVE APPLICATION OF DUKE ENERGY FIELD
SERVICES, LP FOR AUTHORIZATION TO INJECT,
LEA COUNTY, NEW MEXICO

To Whom It May Concern:

This letter is to advise you that Duke Energy Field Services, LP, (Duke) has filed the enclosed application with the New Mexico Oil Conservation Division (NMOCD) seeking administrative authorization to inject up to 2300 barrels per day of acid gas at a maximum pressure of 2800 psi into the Lower Bone Spring Formation between approximately 8700 and 9100 feet through Duke's proposed Linam AGI Well #1, to be drilled approximately 1980 feet from the south line and 1980 feet from the west line of Section 30 Township 18S Range 37E, NMPM, Lea County, New Mexico. In addition, Duke will test the Brushy Canyon Member of the Delaware Group at approximately 5000' for consideration as a potential secondary injection target. The proposed well will be located approximately 4½ miles west of Hobbs, New Mexico.

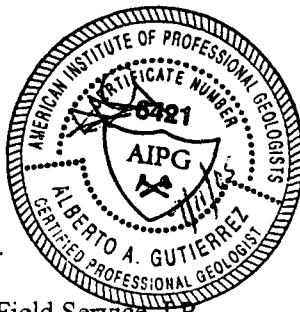
Pursuant to NMOCD requirements, any objections or request for hearing must be filed with NMOCD, 1220 South St. Francis Drive; Santa Fe, New Mexico 87505 within fifteen (15) days of the date of this letter.

Sincerely,
Geolex, Inc.



Alberto A. Gutiérrez, C.P.G.
President

Consultant to Duke Energy Field Service, LP



AAG/lh

Enclosures

cc (w/o enclosures): Joshua B. Epel, Assistant General Counsel – DEFS

D:\Projects\05-005\C108 Application\SW Royalties permit letter.doc

September 10, 2005

Amerada Hess Corporation
PO Box 2040
Houston TX 77252

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

RE: ADMINISTRATIVE APPLICATION OF DUKE ENERGY FIELD
SERVICES, LP FOR AUTHORIZATION TO INJECT,
LEA COUNTY, NEW MEXICO

To Whom It May Concern:

This letter is to advise you that Duke Energy Field Services, LP, (Duke) has filed the enclosed application with the New Mexico Oil Conservation Division (NMOCD) seeking administrative authorization to inject up to 2300 barrels per day of acid gas at a maximum pressure of 2800 psi into the Lower Bone Spring Formation between approximately 8700 and 9100 feet through Duke's proposed Linam AGI Well #1, to be drilled approximately 1980 feet from the south line and 1980 feet from the west line of Section 30 Township 18S Range 37E, NMPM, Lea County, New Mexico. In addition, Duke will test the Brushy Canyon Member of the Delaware Group at approximately 5000' for consideration as a potential secondary injection target. The proposed well will be located approximately 4½ miles west of Hobbs, New Mexico.

Pursuant to NMOCD requirements, any objections or request for hearing must be filed with NMOCD, 1220 South St. Francis Drive; Santa Fe, New Mexico 87505 within fifteen (15) days of the date of this letter.

Sincerely,
Geolex, Inc.



Alberto A. Gutiérrez, C.P.G.
President
Consultant to Duke Energy Field Service, LP



AAG/lh

Enclosures

cc (w/o enclosures): Joshua B. Epel, Assistant General Counsel – DEFS

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September 10, 2005

Chevron USA, Inc.
PO Box 4791
Houston TX 77210

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

RE: ADMINISTRATIVE APPLICATION OF DUKE ENERGY FIELD
SERVICES, LP FOR AUTHORIZATION TO INJECT,
LEA COUNTY, NEW MEXICO

To Whom It May Concern:

This letter is to advise you that Duke Energy Field Services, LP, (Duke) has filed the enclosed application with the New Mexico Oil Conservation Division (NMOCD) seeking administrative authorization to inject up to 2300 barrels per day of acid gas at a maximum pressure of 2800 psi into the Lower Bone Spring Formation between approximately 8700 and 9100 feet through Duke's proposed Linam AGI Well #1, to be drilled approximately 1980 feet from the south line and 1980 feet from the west line of Section 30 Township 18S Range 37E, NMPM, Lea County, New Mexico. In addition, Duke will test the Brushy Canyon Member of the Delaware Group at approximately 5000' for consideration as a potential secondary injection target. The proposed well will be located approximately 4½ miles west of Hobbs, New Mexico.

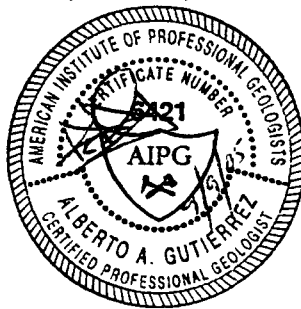
Pursuant to NMOCD requirements, any objections or request for hearing must be filed with NMOCD, 1220 South St. Francis Drive; Santa Fe, New Mexico 87505 within fifteen (15) days of the date of this letter.

Sincerely,
Geolex, Inc.



Alberto A. Gutiérrez, C.P.G.
President

Consultant to Duke Energy Field Service, LP



AAG/lh

Enclosures

cc (w/o enclosures): Joshua B. Epel, Assistant General Counsel – DEFS

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September 10, 2005

Conoco Phillips Co.
PO Box 2197
Houston TX 77252

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

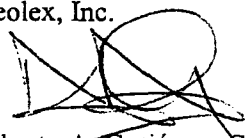
RE: ADMINISTRATIVE APPLICATION OF DUKE ENERGY FIELD
SERVICES, LP FOR AUTHORIZATION TO INJECT,
LEA COUNTY, NEW MEXICO

To Whom It May Concern:

This letter is to advise you that Duke Energy Field Services, LP, (Duke) has filed the enclosed application with the New Mexico Oil Conservation Division (NMOCD) seeking administrative authorization to inject up to 2300 barrels per day of acid gas at a maximum pressure of 2800 psi into the Lower Bone Spring Formation between approximately 8700 and 9100 feet through Duke's proposed Linam AGI Well #1, to be drilled approximately 1980 feet from the south line and 1980 feet from the west line of Section 30 Township 18S Range 37E, NMPM, Lea County, New Mexico. In addition, Duke will test the Brushy Canyon Member of the Delaware Group at approximately 5000' for consideration as a potential secondary injection target. The proposed well will be located approximately 4½ miles west of Hobbs, New Mexico.

Pursuant to NMOCD requirements, any objections or request for hearing must be filed with NMOCD, 1220 South St. Francis Drive; Santa Fe, New Mexico 87505 within fifteen (15) days of the date of this letter.

Sincerely,
Geolex, Inc.


Alberto A. Gutiérrez, C.P.G.
President
Consultant to Duke Energy Field Service, LP



AAG/lh

Enclosures

cc (w/o enclosures): Joshua B. Epel, Assistant General Counsel – DEFS

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September 10, 2005

Marathon Oil Company
PO Box 2069
Houston TX 77252

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

RE: ADMINISTRATIVE APPLICATION OF DUKE ENERGY FIELD
SERVICES, LP FOR AUTHORIZATION TO INJECT,
LEA COUNTY, NEW MEXICO

To Whom It May Concern:

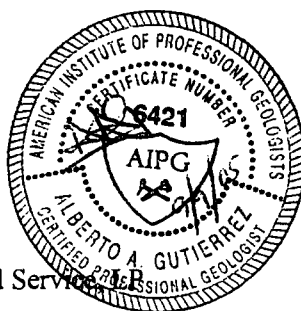
This letter is to advise you that Duke Energy Field Services, LP, (Duke) has filed the enclosed application with the New Mexico Oil Conservation Division (NMOCD) seeking administrative authorization to inject up to 2300 barrels per day of acid gas at a maximum pressure of 2800 psi into the Lower Bone Spring Formation between approximately 8700 and 9100 feet through Duke's proposed Linam AGI Well #1, to be drilled approximately 1980 feet from the south line and 1980 feet from the west line of Section 30 Township 18S Range 37E, NMPM, Lea County, New Mexico. In addition, Duke will test the Brushy Canyon Member of the Delaware Group at approximately 5000' for consideration as a potential secondary injection target. The proposed well will be located approximately 4½ miles west of Hobbs, New Mexico.

Pursuant to NMOCD requirements, any objections or request for hearing must be filed with NMOCD, 1220 South St. Francis Drive; Santa Fe, New Mexico 87505 within fifteen (15) days of the date of this letter.

Sincerely,
Geolex, Inc.



Alberto A. Gutiérrez, C.P.G.
President
Consultant to Duke Energy Field Services, LP



AAG/lh

Enclosures

cc (w/o enclosures): Joshua B. Epel, Assistant General Counsel – DEFS

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Tuesday, September 13, 2005

LEGAL NOTICE

Application of Duke Energy Field Services, LP for Authorization to Inject, Lea County, New Mexico. Duke Energy Field Services, LP has filed an Administrative Application for Authorization to up to 2300 barrels per day of acid gas at a maximum pressure of 2800 psi into the Lower Bone Spring Formation between approximately 8700 and 9100 feet through Duke's proposed Linam AGI Well #1, to be drilled approximately 1980 feet from the south line and 1980 feet from the west line of Section 30, Township 18S, Range 37E, NMPM, Lea County, New Mexico. In addition, Duke Energy Field Services, LP will test the Brushy Canyon Member of the Delaware Group at approximately 5000' for consideration as a potential secondary injection target. The proposed well will be located approximately 4½ miles west of Hobbs, in Lea County, New Mexico. Duke Energy Field Services, LP may be contacted through its representative, Mr. Alberto Gutierrez, 500 Marquette Avenue NW, Suite 1350, Albuquerque, New Mexico 87102 (505) 842-8000. Interested parties must file objections or requests for hearing with the New Mexico Oil Conservation Division, 1220 South St. Francis Drive; Santa Fe, New Mexico 87505 within fifteen (15) days.